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ABSTRACT

Educational Progress in Careers (EPIC), Inc., was organized (1) to develop and validate a system for evaluating career, economic, and community education projects in Florida schools and to assist educators and school district administrators in assessing the status of career, economic, and community education programs; (2) to develop valid data collection procedures at each educational level (elementary, middle/junior high and senior high); and (3) to develop a method for continually involving business representatives, parents, and educators in this evaluation as members of a local evaluation committee in each Florida school district. The final products of this two-year effort include a battery of evaluation instruments (CE 017 394 and CE 017 396-406) for collecting data from students (grades 2 through adult), staff, administrators, and parents and a set of evaluation guidelines (CE 017 395). Some of the findings are the following: (1) over 50% of all students reported a gain in occupational knowledge and/or career planning as a result of the exposure to the instruments; (2) EPIC instruments which measured the knowledge components of the EPIC battery were able to discriminate between treatment, county, and/or grade groups in twenty-two of thirty-one comparisons; and (3) of the eighteen student performance instruments developed, ten are valid and reliable requiring little or no modifications and seven contain valid and reliable items which require modification of items and/or scoring procedures. (Only one instrument was deleted from the battery.) (BM)

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EVALUATING CAREER, ECONOMIC, AND COMMUNITY EDUCATION PROGRAMS

A system developed by executives of Florida business, labor
and professional groups, with educators and the general public,
in coordination with The Florida Council of 100.

EPIC, Inc.
2411 East Las Olas Boulevard
Ft. Lauderdale, Florida 33301

Dr. Thomas B. Justiz
Project Director

Final Report of Contracts 750-010 and 760-013
July 16, 1974 to June 30, 1976

The project reported herein was conducted pursuant to two contracts from the Vocational Division of the Florida Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgements in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent the official position or policy of the Florida Department of Education.

CE 017 406

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PREFACE

EPIC, Incorporated was organized by The Florida Council of 100 to help Florida's public education system better prepare children for life in the real economic world.

Research indicates that realistic education develops greater interest and attention from students and that, in turn, should develop a life-long interest in continued education both in school and at work.

Council members believe that realistic education prepares students to compete continually in a productive society. Students must understand the economic system in order to succeed within it.

Educators have developed programs of career-economic-community education which they believe will achieve these important requirements of realistic education. Success requires continued enthusiasm and involvement of business and industry.

EPIC, Inc. is a developmental project that is helping to bring the resources of the business community to these three movements in education . . . three movements in which business people are interested!

EPIC, Inc. contracted with the Vocational Division of the Florida Department of Education to develop and validate an evaluation system for collecting data from students, staff, administrators and parents in Florida public school systems.

The system has developed from the employer's point of view, so that educators may understand what students must know, do and believe to succeed in the world of business. A Statewide Evaluation Committee has been assembled from business, industry, labor and professional groups as our "sounding board."

The Florida school districts of Broward, Orange and Pinellas have assisted EPIC, Inc. with the validation of all instruments and procedures which educators and lay-community members may eventually use to determine in part the effectiveness of local programs.

If these programs of career-economic-community education are found to be capable of better preparing Florida students for their future, The Florida Council of 100 intends to promote actively such programs with business, industry and the general public.

Willard D. Dover, President
EPIC, Incorporated

ACKNOWLEDGEMENTS

The efforts of the Statewide Evaluation Committee during the first two years of Project EPIC have proven successful. The fact that busy executives have made valuable contributions to the development of an evaluation system for career, economic and community education reinforces the belief that quality education will continue to prosper in Florida.

STATEWIDE EVALUATION COMMITTEE MEMBERSHIP ROSTER, JULY 1974 - JUNE 1976

* Indicates Florida Council of 100 Membership

William E. Allen, Secretary/Treasurer, Florida AFL-CIO, Tampa
Clara E. Bower, R.D., President, Florida Dietetic Association, Daytona Beach
* John B. Boy, President, U. S. Sugar Corporation, Clewiston
* Thomas Bronson, President, Florida Mining and Materials, Tampa
* John Buchanan, Vice President (and Dr. David Konigsburg), Prudential Insurance, Jacksonville
John Carr, Executive Vice President, Pinellas Contractors and Builders, Pinellas Park
Chad J. Chadwick, Executive Director, Broward Manufacturing Association, Ft. Lauderdale
Mrs. Troy Chapin, President, Florida Congress of Parents and Teachers, Orlando
Les Clemens, Executive Director, Florida Credit Union League, Inc., Tallahassee
Ken Dockery, Director of Educational Services, Roofing, Sheet Metal, Air Conditioning Contractors Association, Lakeland
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Fred Drake, Drake Management, Inc., Tallahassee
Robert Ellyson, Partner, Coopers and Lybrand, Miami
Patricia Elmore, President, Standard Systems Corporation, Pompano Beach
* Sam C. Fleming, President, Panama Machinery & Supply Co., Panama City
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Henry Forsetlund, CAE, Executive Vice President, Florida Independent Mutual Agents, Inc., St. Petersburg
Lester Freeman, Executive Vice President, Greater Miami Chamber of Commerce, Miami
Tom Gaines, Education and Training Director, Associated General Contractors, Tampa
C. A. Gertner, Managing Director, Florida Trucking Association, Inc., Jacksonville
Dr. H. Larry Gore, D.V.M., Executive Secretary, Florida Veterinary Medical Association, West Palm Beach
* Gerald H. Gould, President, W. G. Development Corporation, Sun City Center
* William Griffith, General Manager (and Warren Rodgers), Westinghouse Electric, Pensacola
Stanley I. Hand, Executive Director, Aggregates Association of Florida, Inc. and Florida Concrete and Products Association, Inc., Winter Park
George W. Harris, President, Citrus and Chemical Bank of Bartow, Bartow
Glatys Harsin, Vice President, Florida AFL-CIO, Tampa
John T. Hartley, Vice President (and Mrs. Selwyn Edwards), Harris Corporation, Melbourne
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Arthur H. Hertz, Senior Vice President, Wometco, Miami

Mark C. Hollis, Vice President, Publix Supermarkets, Lakeland
* Frank Hubbard, Hubbard Construction, Orlando
Richard D. Kline, Vice President, Lehigh Portland Cement, Miami
Terry W. Knepper, Secretary/Treasurer, Florida Pollution Control Association, Clearwater
* Jack Lake, Publisher, St. Petersburg Times & Evening Independent, St. Petersburg
* Jack Leppert, Vice President, MGT of America, Inc., Tallahassee
J. Elliot Messer, Attorney, Thompson, Wadsworth, and Messer, Tallahassee
M. Lance Miller, Executive Director, Florida Engineering Society, Tallahassee
John Milstead, Executive Vice President, Florida Bankers Association, Orlando
Jack S. Monahan, Jr. Executive Vice President (and Pat Haines), Florida Hospital Association, Orlando
* Charles Mundell, President, Lee Drugs, Orlando
Walter Murr, Director of Marketing, Florida Retail Federation, Jacksonville
* Howard Nix, Jr., President, Union Trust, St. Petersburg
* Stuart W. Patton, Attorney, Patton, Kanner, Nadeau et. al., Miami
James P. Passilla, Vice President, Disneyworld, Lake Buena Vista
* Fred Pettijohn, Vice President, Ft. Lauderdale News, Ft. Lauderdale
Charles B. Potter, Vice President, Burdines, Miami
Jim Reynolds, Regional Personnel Director, Montgomery Ward and Company, Inc., Orlando
Harold C. Rowe, President, Environmental Association/Florida Society of Association Executives, Clearwater
* Fred Schultz, President (and Don Koch), Schultz Investments, Jacksonville
Ronald S. Spencer, Jr., Executive Vice President, Florida Chamber of Commerce, Tallahassee
* J. B. Stancliffe, President, Stancliffe and Company, Tequesta
Harold W. Stayman, Jr., Executive Vice President, Economic Council of Palm Beach County, West Palm Beach
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* Robert Thomas, President, Port Sutton, Inc., Tampa
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Gordon M. Wiggin, Executive Director, Florida Accountants Association, Ft. Lauderdale

Local Evaluation Committee Members

State Representative William R. Conway, Holly Hill, Florida
Mrs. Nancye Barrett, Public Relations Specialist, Pinellas County
Mrs. Judy Cannon, Parent, Broward County
Mrs. Ruth Dikman, Executive Secretary, Pinellas County
Mr. Harmon Esson, Insurance Executive, Pinellas County

Mr. Martin Reichle, Business Manager, Gore Newspapers Co., Broward County
Mrs. Sue Serio, Evans High School Advisory Committee, Orange County
Mrs. Sharon Stanford, P.T.O. President, Lake Weston Elementary School, Orange County
Mr. Al Tanke, Assistant Vice President for Business Development, Landmark Banking Corp., Broward County
Mr. Jack Thompson, Insurance Executive, Broward County
Mrs. Eva Williams, Parent, Broward County

Statewide and Local Associations

A number of statewide and local associations have contributed a resolution of support to the EPIC project. Those endorsing are:

Aggregates Association of Florida
Associated General Contractors
Broward Manufacturers Association
Environmental Management Association
Florida Accountants Association
Florida AFL-CIO
Florida Bankers Association
Florida Chamber of Commerce
Florida Concrete and Products Association
Florida Dietetic Association
Florida Engineering Society
Florida Forestry Association
Florida Independent Mutual Agents, Inc.
Florida Hospital Association
Florida Institute of Public Accountants
Florida Jaycees
Florida Medical Association
Florida Pollution Control Association, Inc.
Florida Retail Federation
Florida Roofing, Sheet Metal, and Air Conditioning Contractors Association, Inc.
Florida Society of Association Executives
Florida Society of Dentistry for Children
Florida Trucking Association, Inc.
Florida Veterinary Medical Association
The Greater Miami Chamber of Commerce
The Independent Dispensing Opticians of Florida, Inc.

Representatives of these associations who appear in the EPIC Contributors list (on the previous pages) have participated as members of the Statewide Evaluation Committee, and have participated in the development of the EPIC evaluation system.

State and Local Educators

EPIC is grateful to several members of the Vocational Division of the Florida Department of Education for coordinated efforts throughout the project:

Mr. Joe D. Mills, Director, Division of Vocational Education
Mr. E. A. Emmelhainz, Assistant Director, Vocational Division (now retired)
Dr. Kenneth M. Eaddy, Chief, Bureau of Research, Dissemination and Evaluation, and EPIC Contract Coordinator
Mr. Robert L. Eaton, Consultant, Dissemination and Diffusion Section, Bureau of Research, Dissemination and Evaluation
Dr. Margaret Ferqueron, Career Education Coordinator and Program Director, Dissemination and Diffusion Section, Bureau of Research, Dissemination and Evaluation

Mr. Thurman J. Bailey, Chief, Bureau of Vocational Programs and Staff Development
Mr. L. Warren Harrell, Program Director, Bureau of Vocational Programs and Staff Development
Ms. Patsy Agee, Program Director, Region 3, Vocational Division
Mr. Dick Gavin, Program Director, Region 4, Vocational Division
Mr. Cordon Oakley, Program Director, Region 5, Vocational Division
Mr. Donald Darling, Program Director, Student Services, Elementary and Secondary Division
Mr. Dale Ake, Consultant, Adult and Vocational Guidance, Elementary and Secondary Division
Dr. Robert Lathrop, Director, Career Education Center, Florida State University

. . . and their hard working secretarial and clerical staffs.

EPIC is indebted to the coordinators of the Orange, Broward and Pinellas Career Education Projects for their continual efforts during the development and validation of the EPIC instruments, and for their assistance during three EPIC instrument validation workshops:

Orange County - Mr. Bill Ripley, November 25, 1975
Broward County - Mrs. Anne McMichael, January 13, 1976
Pinellas County - Mr. Bill Rennie, February 18, 1976

EPIC is also indebted to each participant of the instrument validation workshops for many hours of effort in refining all the EPIC instruments.

Orange County Workshop Participants:

Ms. Allison Annon, Art Teacher, Evans
Mr. Max Branyon, Work Experience Coordinator, Memorial
Mr. Bill Cutlip, Work Experience, Edgewater
Ms. Irma Holt, Counselor, Evans
Mr. Bob Jones, Occupational Specialist, Woods Annex
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Ms. Susan Key, Occupational Specialist, Evans
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Mr. Richard Slater, Industrial Arts Teacher, Evans
Ms. Pat Spoone, Counselor, Evans
Mr. Sid Tally, Business Education Teacher, Evans
Ms. Connie Weak, Math Teacher, Evans

Broward County Workshop Participants

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Mr. Dave Fitzpatrick, Director of Career Education
Mr. Carl Grieco, Distributive Education, Miramar H. S.
Mr. Bob Grove, Communications Tech., Nova H. S.
Mr. Dave Hogg, Principal, Hallandale H. S.
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Mr. Harry Ingraham, Social Studies Teacher, Dunedin H. S.
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EPIC is also grateful to Mr. Robert Megow, Orange County Project Director, Dr. James Smith, former Broward County Project Director, and Mrs. Myrtle Hunt, Pinellas County Project Director for the many new career education curriculum units which were made available to EPIC as a partial contribution to the instrument development.

EPIC is indebted to the following educators and students for the development of the first Career-Economic-Community Education Workshop for the EPIC Statewide Evaluation Committee at the Tampa Conference in November, 1974:

Mrs. Myrtle Hunt, Career Education Project Director, Pinellas County School District.

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Mrs. Peggy Upton

Pinellas County Students:

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David Niser
Kim Pearson
Amos Wiggins

Dr. Phillip A. Clark, Director of the Center for Community Education, University of Florida
Dr. Lawrence Cunningham, Career Education Project Director, Collier County School District

EPIC is grateful to the following specialists for presenting "live" demonstrations of the EPIC Components at the January 16, 1976 conference in Orlando.

Knowledge of the Economic System:

Ms. Nadine Alleston, Occupational Specialist, Tyrone Middle School

Knowledge of Occupations/Student-Worker Contacts:

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Ms. Claire Lieberwitz, Art Instructor, Hallandale High School

Florida VIEW (Vital Information for Education and Work):

Mr. Bill Woolley, Director, Project VIEW
Mr. Bob Ruane, Coordinator, Project VIEW

Guidance for Realistic Career Decisions/Alternatives for Potential Early School Leavers:

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Mr. Jim Murray, Career Development Specialist, Orange County Career Development Program
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Community-School Facility Utilization:

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Mr. Steve Tabor, Community Education Project Coordinator, Alachua County

The EPIC project staff gratefully acknowledges the assistance of the Orange, Broward and Pinellas County school districts during the field run, pilot test and pre-tests of the EPIC evaluation instruments in April, May and October, 1975 and during the post-tests in March, 1976.

Orange County

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Mr. Bill Ripley, Career Education Project Coordinator, Orange County School District

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Mr. Ted Gregory (Mrs. Connie Rounds), Rock Lake Elementary School
Mr. Vernon Parish (Mrs. Elaine Manfredi), Walker Junior High School
Mr. Henry Dominy (Mrs. Jan Cullison), Liberty Junior High School
Mr. Myron Singhaus (Ms. Wana Senter, Mr. Dale Brushwood), Evans Senior High School
Mr. Bill Spoone (Mr. Greg Kennedy), Oak Ridge Senior High School

Broward County

Mr. Jim Maurer, Superintendent and Dr. William Drainer (former Superintendent), Broward County School District
Mr. Dave Fitzpatrick, Career Education Project Director and Dr. James Smith (former Director), Broward County School District
Mrs. Anne McMichael, Career Education Curriculum Specialist, Broward County School District

Testing Coordinators:

Mrs. Juanita Nutter
Mr. Regis Schiffbauer
Mrs. Jeanne Simko
Mr. Frank Theriault

School Principals (and their Coordinators):

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Dr. Gian Berchielli, Flamingo Elementary School
Mrs. Eleanor Howarth (Mrs. Lynn Sapin), Miramar Elementary School
Mr. James Flynn (Mrs. Elaine Burnekel, Mr. Walt Tilghman), Crystal Lakes Middle School
Mrs. Maureen Bethel (Mrs. Elaine Voigt), Everglades Middle School
Mr. Henry Brandon (Mr. Bob Schmidlin), Hallandale Middle School
Mr. Frank J. Clinton, New River Middle School
Mr. Norman Swigler, Boyd Anderson High School
Mr. David Hogg (Mr. Ruben Ransaw, Mr. Charles Ward), Hallandale High School
Mr. Edwin Treherne (Mr. Robert Hankerson, Mr. David Segal), McArthur High School
Mr. Roy Campbell (Mrs. Ellen McKinley), Nova High School
Mr. James Link (Mrs. Jean Forsberg), South Plantation High School

Pinellas County

Dr. Gus Sakkis, Superintendent, Pinellas County School District
Mrs. Myrtle Hunt, Career Education Project Director, Pinellas County School District
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School Principals (and their Coordinators):

Mr. Leonard Summers (Miss Peggy Upton), Campbell Park Elementary School
Mrs. Frances Penn (Miss Grace Bachman), Pasadena Elementary School
Mr. Johnny Welch (Mr. Alvin Porter), Perkins Elementary School
Mr. Scotty East (Ms. Gloria Deilke), Azalea Middle School
Mr. Wesley Simineau (Ms. Constance Sweet, Mr. William Templeman), Seminole Middle School
Mr. John Russell (Mrs. Carol Raabe), Tyrone Middle School
Mr. Francis Freeman (Mr. Tommy Gibbs, Mr. Ken Zoph, Jr., Mr. Jim Watters), Dunedin Senior High School
Mr. Bruce McMillan (Mr. Gerard Barlik), Gibbs Senior High School
Mr. Vyrle Davis (Mrs. Doris Clemens, Mr. Melvin Erlinger), St. Petersburg Senior High School

Two subcontractors to Project EPIC provided a sizable number of career-economic-community education instruments during a national search for these instruments:

Dr. James C. Edmundson, Jr., Director of Programs, Fayetteville State University, North Carolina
Dr. Phillip A. Clark, Director of the Center for Community Education, University of Florida

In addition, Dr. Clark provided instruments and pilot data for the evaluation of community education projects throughout the state.

EPIC, Inc. gratefully acknowledges the assistance provided by Dr. Abraham Fischler and the Nova University Behavioral Science Center for computer time and programs used in the data reduction, analysis and validation of several key EPIC instruments.

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SUMMARY

EPIC, Inc. was organized in July, 1974 as an affiliate of the Florida Council of 100, to develop and validate a system for evaluating career, economic, and community education projects in Florida schools. By June of 1976, EPIC, Inc. will have published and turned over to the Florida State Department of Education a completely validated instrument package for these purposes.

The Chairman of the Florida Council of 100 Education Committee, Bill Dover, who was a member of the Governor's Committee on Education from 1971-73, was the founder of EPIC, Inc. Mr. Dover organized EPIC, Inc. in order that "outsiders" could participate with educators at all levels of career, economic and community education, from planning and implementation through evaluation.

Project Organization

The Education Committee of the Florida Council of 100 selected career-economic-community education as areas in which members were especially interested. This committee believed that broad cross-sections of people in Florida school districts must jointly plan to improve the education offered in their districts and, therefore, better equip children and adults for the world in which they live.

Based on that belief, the committee organized EPIC, Inc. as a non-profit educational corporation (directed by members of the Florida Council of 100 Education Committee), to request and receive funds to conduct research and evaluation studies in all phases of career-economic-community education.

The committee recognized, as did Florida educators, the sparsity of instruments, and procedures necessary to assess career, economic and community education in the State. Therefore, in July, 1974, EPIC, Inc. contracted with the Vocational Division of the Florida Department of Education to develop and validate an evaluation system for collecting data on career-economic-community education from students, staff, administrators and parents, which educators and lay-community members could use to determine the effectiveness of local programs.

The Statewide Evaluation Committee was organized by the EPIC Board of Directors in August, 1974 as a "sounding board" in the development and validation of the EPIC evaluation system.

Purposes of the Evaluation System

1) To develop and validate an evaluation system from the employers' point of view, to assist educators and school district administrators in assessing the status of career, economic and community education programs.

2) To develop valid data collection procedures at each educational level (elementary, middle/junior high and senior high), within specified time limits, which students will find comfortable while proceeding to work through the EPIC instrument battery.

3) To develop a method for continually involving business representatives, parents and educators in evaluating career, economic and community education, as members of a local evaluation committee in each Florida school district.

Methods

In order to validate properly a battery of evaluation instruments and to demonstrate their use in Florida school districts, EPIC, Inc. completed the following activities prior to the completion dates shown below:

1) Organized a Statewide Evaluation Committee and introduced a position paper on career-economic-community education by the EPIC Board of Directors (August, 1974).

2) Summarized a consensus of positions by the EPIC Statewide Evaluation Committee which eventually became The Ten Components of Career-Economic Community Education (November, 1974).

3) Used 25 criteria (evaluation questions developed from the 10 components) to sort and categorize instruments received from a national search of career-economic-community education instrumentation (January, 1975).

4) Isolated 25 dimensions of student performance together with 18 related dimensions of administrative, staff and community performance (April, 1975).

5) Developed, through the efforts of the Statewide Evaluation Committee, organized as specializing validation review teams, 18 evaluation instruments (containing the 25 isolated student product dimensions) and 6 related instruments (containing the 18 related dimensions) which demonstrate administrative, staff, and community performance (December, 1975).

6) Completed the validation of instrument content through a series of three workshops for administrators, principals, staff, parents and business representatives in the Orange, Broward and Pinellas school districts (February, 1976).

7) Used the EPIC instrument battery to collect pre/post-test experimental/control data on the career and economic dimensions in the Broward, Orange and Pinellas school districts (March, 1976).

8) Reduced and analyzed all collected data (April, 1976).

9) Developed and validated instruments for the community education component and collected pilot data using these instruments (April, 1976).

10) Submitted the components, criteria, dimensions, instruments, data, and analysis with tentative findings to the Statewide Evaluation Committee for review and recommendations (April, 1976).

11) Submitted a final report (which included evaluation guidelines), of products, activities, procedures, results, recommendations, cost factors, and bibliography (May, 1976).

12) Conducted a two-day training workshop for the staff of the Vocational Division of the Florida Department of Education. (May-June, 1976.)

EPIC Products

The final products of the two-year EPIC effort are as follows:

1) A battery of evaluation instruments for collecting data from students (in grades two through adult), staff, administrators and parents in Florida school districts.

2) Evaluation guidelines (contained within the report), which include the purposes of the evaluation system, components, criteria, and dimensions which are measured with the instruments; data collection procedures which include strategies for organizing resources used in conducting the evaluations; data reduction and analysis procedures with scoring keys; findings, conclusions and recommendations for potential users, and cost factors.

The Ten Components of Career-Economic-Community Education

The EPIC Board of Directors, in coordination with the Statewide Evaluation Committee, have developed 10 components of career, economic, and community education, as follows:

1) Knowledge of the Economic System

2) Knowledge of Occupations

3) Guidance for Realistic Career Decisions

4) Employment-Entry Skills

5) Alternatives for Potential Early School Leavers

6) Student-Worker Contacts

7) Placement and Follow-Up

8) Staff Development

9) Community Involvement

10) Community-School Facility Utilization

The on-going purpose of the EPIC Board of Directors and the Statewide Evaluation Committee is that each component should receive greater emphasis in Florida education.

TEN COMPONENTS OF CAREER-ECONOMIC-COMMUNITY EDUCATION (Final - May 1, 1976)

#1 - KNOWLEDGE OF THE ECONOMIC SYSTEM: Students and teachers should understand the development and workings of our free enterprise system . . so that students may become aware that society is offering them an opportunity to prepare for a career and to provide for themselves in an economic world.

#2 - KNOWLEDGE OF OCCUPATIONS: Students should be encouraged to review labor-market information on available careers and to explore a variety of different work situations.

#3 - GUIDANCE FOR REALISTIC CAREER DECISIONS: Students should be encouraged to plan systematically for a career and become better prepared to make realistic career choices, in terms of their own interests, abilities, achievements and limitations, even as they anticipate changes in careers.

#4 - EMPLOYMENT-ENTRY SKILLS: Students should be provided with "hands-on" experiences which emphasize how academic and vocational skills are used in the working world. These experiences should lead to certificates of skill mastery to encourage students to believe that because of their education, they will not only "fit in," but will eminently succeed in our economic world.

#5 - ALTERNATIVES FOR POTENTIAL EARLY SCHOOL LEAVERS: Potential early school leavers should be encouraged to enter programs which develop skills in basic reading, communications and computation, career exploration, and skills for acquiring and working on a job.

#6 - STUDENT-WORKER CONTACTS: Students should be provided opportunities to make contact with all levels of working adults throughout the community to qualify their interests before choosing specific careers and related life styles.

#7 - PLACEMENT AND FOLLOW-UP: Students should be given the opportunity of employment or some other appropriate placement, such as higher education, before leaving school, through operational placement/follow-up systems staffed with qualified persons.

#8 - STAFF DEVELOPMENT: All administrators and staff should be provided in-service training using career and economic education strategies. Teachers should issue grades based on the completion of assigned tasks to develop students' self-confidence through trial and error performances, so that they may gain greater motivation to try and complete other tasks with less supervision.

#9 - COMMUNITY INVOLVEMENT: Community members should be involved in the planning, implementation and evaluation of educational programs.

#10 - COMMUNITY-SCHOOL FACILITY UTILIZATION: School-community agencies should cooperate for more efficient and flexible (year-round/round-the-clock) use of community facilities, resources and programs to provide educational, recreational and cultural services for every interested member of the community.

The EPIC Instrument Battery

There are currently 18 valid instruments available to measure the performance of elementary, middle and senior high students on the dimensions of career and economic activity. These instruments were developed in accordance with the first five EPIC components, as follows:

Instruments Related to EPIC Components		Grade Level Range			Maximum Minutes
Instrument #	Instrument Title	2-4	7-8	10-12	
1a	Knowledge of the Economic System	x			5
1b	Knowledge of the Economic System		x		10
1c	Knowledge of the Economic System			x	10
1d	Knowledge of the Economic System (alternate form)			x	10
2a	Worker Titles	x	x	x	10
2b	Workers in Different Industries	x			20
2c	Workers in Different Industries (alternate form)		x		10
2d	Preparation for Employment		x		10
2e	Job Requirements and Functions			x	30
2f	Job Requirements and Functions (alternate form)			x	30
3a	Career Planning		x	x	15
3b	Considering Careers		x	x	15
4a	Acquiring and Maintaining a Job			x	15
4b	Inventory of Work Skills			x	15
5a	Attitudes Toward School and Careers	x			5
5b	Attitudes Toward School and Careers		x	x	10
	Critique of Evaluation		x		--
	Critique of Evaluation			x	--

Six related instruments were developed to measure the performance of school administrators, school staff and community members, in accordance with all 10 EPIC components, as follows:

EPIC Components

#1 - Knowledge of the Economic System
#2 - Knowledge of Occupations
#3 - Guidance for Realistic Career Decisions
#4 - Employment-Entry Skills
#5 - Alternatives for Potential Early School Leavers
#6 - Student-Worker Contacts
#7 - Placement and Follow-Up
#8 - Staff Development
#9 - Community Involvement
#10 - Community-School Facility Utilization

	Overview of 10 Components	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
School Coordinator's Questionnaire						x	x				
Placement/Follow-Up Director's Questionnaire								x			
Career Education Director's Questionnaire	x								x		
Teacher's Questionnaire		x	x	x	x				x		
Community Needs Survey										x	x
Community Education Director's Questionnaire											x

Procedures for Validating Instruments

The EPIC student product instruments have undergone the following validations:

1) Instrument content and scoring keys were developed and approved by members of the Statewide Evaluation Committee. As employers and representatives of labor and professional groups, this committee was organized into teams which represented 13 different types of Florida industrial categories (similar to the 15 U.S.O.E. clusters). These teams organized and validated the student product instruments so that students would be exposed to the world of industries in Florida, the various areas of economics, and other dimensions which employers considered critical when evaluating employees.

2) Each of the 25 dimensions of student behavior was compared against the original language of the 8 Elements of Career Education from the U.S.O.E.-Ohio State Comprehensive Career Education Model (CCEM), as a point of departure with which it was presumed most career educators in Florida would be familiar. The 25 dimensions represent an attempt to further define the "8 elements" (a "curriculum language") into a more operational "evaluation language." Each dimension was developed by sorting (sometimes thousands) of test items, so that it would represent a "unique" dimension of student behavior.

3) Each item in each instrument was examined for its ability to discriminate between experimental and control groups of career education students. Most of the items which could not discriminate were eliminated from the battery. Knowledge of economics items was not considered.

4) Each item was examined for "floor and ceiling" effect. When almost all students in a particular grade level could perform an item successfully, it was eliminated, or moved to a lower grade level. When almost none of the students in a particular grade level could perform an item successfully, it was eliminated, or moved to a higher grade level.

5) Almost all of the items were examined for reading level, using teachers as validators and by using a readability formula. This information was used when packaging the items per grade level range.

6) A number of instruments were selected for each educational level (elementary, middle, and senior high). A maximum time for administering each instrument was given. When all students in different schools, in a particular grade level range (such as 2, 3, 4, or 7, 8, or 10, 11), completed the instruments comfortably in a similar time period (such as 50 minutes for elementary, 90 minutes for middle or junior high, and 120 minutes for senior high), the instruments and data collection procedure were considered "valid."

7) Each sub-set of items within each instrument was examined to determine the extent of correlation of higher scores with higher grade levels. A high positive or negative correlation of scores with grade levels indicated the strong potential of each instrument in establishing norms, and the corresponding wider generalizability of data. (One strength of the EPIC system is its ability to evaluate career education performances in grades two through twelve, across school districts, regardless of individual programs or treatments of students.)

8) The items which reflect student performance best are usually not those with discrete responses, such as true/false or multiple choice. Every effort has been made in the design and validation to preserve those items which elicit the "broader scope" of student performance regardless of the difficulty which these items present during data reduction and scoring.

Instrument Development Methods for Involving Community Resources

Twenty-five criteria (or evaluation questions) were originally developed from the 10 components. These criteria were used to sort and categorize items from over 200 instruments which were collected during a national search of career, economic and community education instruments, giving Florida a more realistic perspective of the state-of-the-art of instruments available. Twenty-four new EPIC instruments were developed from the criteria. Many of these EPIC instruments contained dimensions of student performance which were not available in the national search instruments.

The EPIC Statewide Evaluation Committee formed task forces which provided a continual exchange of information in the development of the 18 student product instruments, via mailouts, telephone conversations, and live interchanges at EPIC board meetings, workshops and conferences.

The six additional instruments for collecting process data from administrators, principals, and staff specialists were developed in coordination with the career education project coordinators of the Orange, Broward and Pinellas career education projects.

EPIC worked with the chairman of the State Advisory Council for Community Education in the development of the instrument for community education directors.

Three workshops involved the staff specialists, principals, administrators, business representatives and parents of the Orange, Broward and Pinellas school districts . . . these personnel further validated each EPIC instrument for collecting post-test data in March, 1976.

An instrument training and final validation session for members of the Statewide Evaluation Committee and lay-community members was held at the January, 1976 Conference. At this time, EPIC members and lay-community members signed up to assist the EPIC staff with the March, 1976 post-test data collection sessions.

During the post-test data collections, local community members reviewed and analyzed data as it was collected and suggested appropriate refinements of the instruments and data collection procedures.

A total of over 2,800 students, 600 staff members, 25 administrators, and 350 community members from the Orange, Broward and Pinellas school districts submitted data which was used to validate the EPIC instrument battery at several intervals of the project as follows: April - May, 1974 (pilot tests); September - October, 1975 (pre-tests); March, 1976 (post-tests).

Reliability - Reliability testing has been a continuous part of the EPIC instrument development process. This has been accomplished through the use of item analysis procedures. The statistical technique used was Kuder-Richardson formula - 20(KR-20). This procedure determines the level of internal consistency of the test. Internal consistency is an index of the degree to which items measure the same body of content. This procedure is only appropriate for instruments which are designed to test a single body of content. It was used with instruments which were scored right or wrong. This procedure is useful only for knowledge tests and was not used for the survey instruments or instruments which ask for the student's attitude or opinion.

At each stage of instrument development, the instruments were subjected to item analysis procedures. New items were constructed based on these results.

The post-test knowledge instruments all possess adequate reliability for research and evaluation purposes except for the la instrument. This instrument has such a limited number of items that its reliability is lower than desirable. The lc and 2e instruments were re-tested with new samples which indicated that the item selection procedures resulted in reliabilities in excess of 0.8 with the new sample. The reliabilities of most standardized tests fall in the range between 0.8 and 0.9, so this is a most satisfactory result.

EPIC Purposes and Objectives Attained

Objective 1: To give many Florida students their first broad exposure to what they will need to succeed in the world of business.

Results

Approximately two-thirds of the students tested reported no previous exposure to the types of items in the EPIC test battery. Over 50% of all students reported a gain in occupational knowledge and/or career planning as a result of the exposure to the instruments.

Objective 2: To expose students to the world of Florida occupations, and the various dimensions of the field of economics.

Results

Approximately two-thirds of the students reported no previous exposure to the world of Florida occupations as contained in the EPIC battery. Approximately 74% of the students tested reported no previous exposure to the various fields of economics tested by the EPIC instruments.

Objective 3: To expose educators and school administrators to career and economic elements.

Results

Teacher responses indicate that some students are being exposed to approximately 50% of the possible areas of economics, two-thirds of an industrial cross-section sample of occupations, and 50% of an industrial cross-section of work skills.

Objective 4: To give Florida school district personnel some valid and reliable methods for demonstrating the progress of their career, economic and community education programs.

Results

EPIC instruments which measured the knowledge components of the EPIC battery were able to discriminate between treatment, county and/or grade groups in twenty-two out of thirty-one comparisons. All instruments had reliabilities in excess of the level desired for research and evaluation purposes except for one instrument for elementary students. The instruments for measuring career awareness and skills inventory discriminated between career education and control students consistently. Only instruments attempting to measure attitude have not been able to make discriminations between career education and control groups.

Objective 5: To develop valid data collection procedures at the elementary, middle (junior high) and senior high levels, within specified time limits, which students will find comfortable while proceeding to work through the instrument battery.

Results

Only 6% of the students tested report that the testing was a negative experience within the time limits which have been established.

Objective 6: To develop a method for continually involving business representatives, parents and educators in evaluating career, economic and community education.

Results

A Statewide Evaluation Committee has been established with 50 members (and alternates). Local business people and parents have been continually involved during all phases of goal setting, instrument design, data collection and data review.

Summary of Findings and Conclusions Related to the EPIC Instruments

Of the eighteen student performance instruments developed, ten are valid and reliable requiring little or no modifications (these are 1b, 1c, 1d, 2a, 2b, 2d, 2e, 2f, 3b, 4b); seven contain valid and reliable items which require modification of items and/or scoring procedures (these are 1a, 3a, 4a, 5a, 5b, Critique 7, 8 and Critique 10, 11); only instrument 2c was deleted from the battery (for having a ceiling effect). The Teacher Questionnaire has provided valid data and an insight into the levels of program implementation in grades two through twelve. The Parent Questionnaire (Community Needs Survey) contains valid items for assessing attitudes and program-facility needs for each Florida community. The four administrative questionnaires (School Coordinator, Career Education Coordinator, Placement/Follow-Up Coordinator, and Community Education Coordinator) were all retained. All contain valid items for administrative purposes.

The summary of significant findings and conclusions from the eighteen student performance instruments are as follows:

1a - Knowledge of the Economic System (Grades 2 through 4)

The five items retained are able to discriminate between treatment and grade level.

1b - Knowledge of the Economic System (Grades 7 and 8)

The twenty items retained are able to discriminate between treatment and grade level.

1c - Knowledge of the Economic System (Grades 10 through 12)

The twenty-five items retained are able to discriminate between treatment and grade level. The level of economic knowledge is low. An average of 63.4% was attained by the total student sample.

1d - Knowledge of the Economic System (Grades 10 through 12)

The twenty items retained were not able to discriminate, but did have adequate reliability for research purposes. The average attained was 66.5% by the total student sample. (The overall level of student economic knowledge has not indicated any change from the pilot test one year ago, when an average score of 64.7% was recorded by the student sample using a similar pool of items.)

2a - Worker Titles (Grades 2 through 12)

This instrument has been shown to a consistently valid measure of differences between career education and control classes on a number of different occasions at grade levels two through twelve, at the 0.05 and 0.01 levels of significance. The test also discriminates between grade levels but exhibits a ceiling effect at about the tenth grade.

2b - Workers in Different Industries (Grades 2 through 4)

The test was able to discriminate treatment and grade level effects, but should be tested for inter-scorer reliability.

2c - Workers in Different Industries (Grades 7 and 8)

This instrument will be deleted from the battery as it has a ceiling effect which enables the fourth grade students to score as high as the seventh or eighth grade students.

2d - Preparation for Employment (Grades 7 and 8)

This test is able to discriminate both grade and treatment effects, and may be useful at the ninth grade level or higher.

2e - Job Requirements and Functions (Grades 10 through 12)

The sixty items retained were able to discriminate treatment effects in Orange County and grade level in Pinellas. For these samples, it has reliability comparable to most standardized tests.

2f - Job Requirements and Functions (Grades 10 through 12)

The sixty items retained were able to discriminate treatment but not grade level in Broward County. It has reliability comparable to most standardized tests. (On the pilot test, one year ago, the 2e/2f instrument was given an additional test of its validity. In a correlation with instrument 2a, it was found that students are more likely to know the specifics of language in an occupational category if they know the names of quite a few occupations.)

3a - Career Planning (Grades 7 through 12)

The test was able to discriminate knowledge of career planning. In many areas, the programs experienced by the students in career education and the control schools do not seem to differ as much as expected.

3b - Considering Careers (Grades 7 through 12)

The test was able to discriminate on the career interest dimension.

4a - Acquiring and Maintaining a Job (Grades 10 through 12)

No significant differences were attained. The scoring procedures will be changed.

4b - Inventory of Work Skills (Grades 10 through 12)

The test was able to discriminate total work skills, skills learned on the job were also significant.

This instrument appears to be a valid measure of work skills required by a number of employers (EPIC members) and by employer groups (Statewide Associations).

This instrument is sensitive enough to be able to produce statistically significant differences on a fairly conservative statistical test. The differences that it produced were highly meaningful.

There are a number of other analytical techniques that can be used on the data produced by this instrument. These techniques are likely to be useful in curriculum planning and other related school decision-making processes.

5a - Attitudes Toward School and Careers (Grades 2 through 4)

This instrument required modification during the data collection. It needs to be re-tested.

5b - Attitudes Toward School and Careers (Grades 7 through 12)

Students exhibited slightly higher attitudes toward careers than toward school. The instrument should be re-tested.

Critique (Grades 7 through 12)

Only six percent of the middle and high school students found the EPIC instrument battery a negative experience. One-third of the students reported that these instruments were similar to the experiences gained from the instructional staff.

Student preferences were lowest for the economics instruments (1c, 1d, 1e). The Career Planning (3a, 4a) and Considering Careers (3b) instruments were most preferred. In general, students preferred the survey instruments more than the instruments which tested knowledge.

Approximately 23.7% of the middle school students and 18.8% of the senior high school students indicated that they needed the exposure to the EPIC test battery to help them "get going" with their career planning.

The following are related findings and conclusions of parents who assisted EPIC with the data collections and who reviewed the raw data at that time:

1c/1d - Knowledge of the Economic System (Grades 10 through 12)

"Students have little knowledge of economics. I would be concerned about this."

2a - Worker Titles (Grades 2 through 12)

"Students have had exposure to many occupations, but were limited in the fields they selected."

2d - Preparation for Employment (Grades 7 and 8)

"The majority of students have little concept of career preparation - they think truck drivers need the same preparation as pharmacists."

2e/2f - Job Requirements and Functions (Grades 10 through 12)

"Students have very minimal knowledge of job qualifications for these occupations."

3a - Career Planning (Grades 7 through 12)

"Students seem to realize the importance of career planning, but don't talk about careers much."

3b - Considering Careers (Grades 7 through 12)

"Students seem to be interested only in the occupations that they knew something about."

4a - Acquiring and Maintaining a Job (Grades 10 through 12)

"Self satisfaction is of primary importance when choosing a job."

5b - Attitudes Toward School and Careers (Grades 7 through 12)

"General attitudes seem to reflect self-esteem and confidence. If students liked school they liked themselves. Students seemed sure of their feelings toward the EPIC components."

Critique (Grades 7 through 12)

"The student responses on the senior high critique ('Please tell us . . .') reinforce the fact that this was the first effort in their school to expose them to thinking or learning about careers and career decision-making factors."

The following are related findings and conclusions when comparing experimental versus control teacher responses:

There is a substantial difference in the amount of economic and occupational related activities at the elementary level favoring the career education teachers; at the middle/junior high level, this difference is still clearly in favor of the career education schools, but the size of the difference is less; at the senior high level, there is no difference between the career education and control teaching activities tested.

This data tends to clarify many of the results that were obtained in the student testing. The student tests consistently produced significant differences between treatment groups at the elementary and middle/junior high levels. At the senior high level, differences were much less frequent. The reason for these findings may be that there is little difference between career education and control high schools in terms of instructional activities.

The following are related findings and conclusions when comparing experimental versus control in-service programs:

Elementary school teachers have the highest percentage of exposure to career education in-service programs (41.9%), middle school teachers have a lower exposure (26.7%) and high school teachers have the lowest exposure rate (18.3%).

The greater exposure of elementary and middle school teachers to in-service career education programs tends to support and explain the greater number of career education activities at these schools. This may also explain the frequency of findings of significant differences between career education and control schools at these levels.

The creation of student career education profiles would allow research into the causative basis and contribution of these programs.

The following are related findings and conclusions related to the Placement/Follow-Up Director's Questionnaire:

Placement/follow-up services vary considerably from district to district.

Placement/follow-up data is difficult to interpret without state-wide or other comparative data on the results of services.

The following are related findings and conclusions related to the School Coordinator's Questionnaire:

The following are valid independent variables for elementary schools:

1. Field trips
2. Career days/fairs.
3. Workers visiting classrooms to discuss careers.

The following are valid variables for middle and senior high schools:

1. Percentage of enrollment identified as early school leavers.
2. Program for the identification of potential early school leavers.
3. Program for the referral of potential early school leavers.
4. Current data file with reasons for dropouts.
5. Field trips and three or more field trips.
6. Shadowing experiences.
7. Employer-based or vocational cooperative programs.
8. Career days/fairs.
9. Workers visiting classrooms to discuss careers.

A study should be conducted to determine which independent variables are valid and reliable indicators of student performance.

The following are findings and conclusions related to the Community Needs Survey:

All except one of the EPIC goals listed in the survey obtained wide support from the Orange County community people surveyed. These goals obtained an average rating of between four and five on a five point scale.

Community members rate the need for community education programs lower than the need for career education programs.

Agencies tended to be highly rated while services (some of which may be the responsibility of highly rated agencies) were rated much lower.

The following are findings and conclusions related to the Community Education Director's Questionnaire:

The Community Education Director's Questionnaire is clear and comprehensive. Combined with the Community Needs Survey and state-wide or other comparative data, it provides a useful evaluation tool for these programs.

Recommendations by the EPIC Statewide Evaluation Committee

1. As a result of a workshop on November 12, 1974, the EPIC Statewide Evaluation Committee identified and reached consensus on ten components of career-economic-community education which were to be evaluated. With the conclusion of a similar workshop on January 16, 1976, the Statewide Evaluation Committee adopted final language and set up priorities for implementing the ten components of career-economic-community education, as follows:

    1) Knowledge of the Economic System
    2) Guidance for Realistic Career Decisions
    3) Knowledge of Occupations
    4) Student-Worker Contacts
    5) Alternatives for Potential Early School Leavers
    6) Staff Development
    7) Employment-Entry Skills
    8) Community Involvement
    9) Placement and Follow-Up
    10) Community-School Facility Utilization

    It should be noted that the basic skills of reading, writing, computation, and communications are also among the top priority items of EPIC members, and should be stressed continually as implementation of the career-economic-community evaluation system progresses. The following hypotheses should be tested:

    > Students with occupational interests (in grades 2 through 12) learn to read and write faster than students without occupational interests.

2. Another future activity is to collect data on student perceptions (pre-versus post employment). Also, employer expectations versus student expectations should be collected.

3. EPIC should consider a high-level public relations compaign that would cause more instructional units in economics concepts to be implemented along with the career education approach. The need for knowledge of the economic system has been underscored time and again by almost every member of the EPIC Statewide Evaluation Committee.

4. Educators should give more emphasis to occupational categories with which students are relatively unfamiliar while de-emphasizing categories with which students are already fairly familiar.

5. There are increasing pressures within Florida and elsewhere for the schools to demonstrate that they are producing students that have skills required by employers upon graduation.

6. If EPIC is to be sold to students, parents, employers, educators and all levels of government, three steps are necessary. They are; 1) prepare on a single page (if possible) EPIC's purpose, development, funding and end result; 2) establish a speakers' bureau backed up with simply stated facts or charts; and 3) commence a regular weekly news release with gratuitous T.V. spots confined to what, where, when and how!

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Recommendations and Comments of Staff Members as a Result of the EPIC Workshops

1. "The EPIC workshop has developed some valuable tools for the overall evaluation of the progress of career and economic programs in the schools. As pre-tests and post-tests, they will provide the classroom teacher with the necessary information on what has been accomplished and what needs to be stressed."

2. "I hope these instruments will finally trickle down to the teachers and counselors. It will be good material for them."

3. " A great deal of comprehensive thinking has gone into these instruments. For the most part they are worded well. I believe they should bring forth some valuable commentary and provide a method of making our learning more practically oriented for the big world outside. More and more, we are seeing the need for involving business people and the community in planning a realistic curriculum. Too many hours in school could be better spent in helping students cope with life and the business world; instilling the need to update skills continuously after leaving school; keeping informed for survival economically."

4. "EPIC workshops should be expanded to involve all teachers."

5. "Hope you have some more meetings."

6. "This workshop has given me a better insite as to what is being done in career education. Materials should be prepared for each teacher for his/her related subject area."

7. "I would like someone to categorize occupations that pertain to school subjects. Students can be exposed to jobs available in areas such as history, art, and math."

8. "If more teachers were encouraged to participate in workshops of this nature, we could get things done."

9. "It is very good to be able to have these inputs before the final decisions (that educators may have to live by) are made."

10. "For the last two years, I have had the suggestion thrown at me to incorporate this into my teaching without any suggestions on how to do it."

11. "EPIC needs to be continued to follow up on its work in these most vital areas. Ideas for improvement and revision should be followed up by action and results that employers are seeking. I would be interested in continuing to work with EPIC."

12. "Bringing different subject areas together promotes understandings of each department. School administrators should be invited to every workshop."

13. "This workshop was most helpful in helping me to become oriented to the great possibilities for helping our youth in a practical way."

14. "I teach American History and have been asked, 'Why do I have to take this again?' I have often felt that specific applications of a workshop, such as this, to my course would be of immense value."

15. "This workshop sure has made me aware of what a lousy job our science department is doing in terms of career education. It has given me some insight into how to approach a valid concept for teaching career education in our department and how little knowledge the students have as to jobs available in various fields."

16. "EPIC can get more teachers to work together and help more students."

17. "There is a terrific potential to get everyone to work together and to integrate career information into all academic disiplines."

18. "In my business law class, I would like for each student to select a related career from a list I will supply, and have each student research and report orally to the class."

19. "We should begin to involve teachers in the full program of careers and be made aware of ways to use this information."

20. "Students don't understand that a lot of the skills learned in school are used on jobs. These skills would qualify students for employment, but they don't know that they have the skills. The instruments are especially good to show 12th graders who have been through a few years of skill development."

Recommendations by a Pinellas County Counselor who was Involved During the Data Collections

These instrument could be the basis for a unit on career/life planning in the high schools. After the two-hour administration of the battery, counselors and occupational specialists could follow through in assisting teachers and student groups in interpretation. The activities could be extended to individual exploration and planning. Teachers would be involved in these extended activities - giving special attention to those career areas that involve their specific curriculum subject area, and using valuing, role-playing, simulation/gaming, etc., in classroom activities showing where, in everyday life, and where, in the world of work, the curriculum content is used.

Recommendation by the EPIC Staff

1. There was an observed "danger" at the high school level in post-testing students with these forms. Many students felt it was a "waste of time", having worked with similar forms earlier in the school year (pre-test forms).

Recommend using the forms as a "post-test only" evaluation design, and not as a pre-post design. The student critiques bear this out. Most students find the EPIC instruments interesting and "eye-opening" on the first encounter. It is understandable how this experience could become "boring" and routine on a second exposure for some students.

2. A complete computerization of the data reduction process should be developed. This further development is necessary to integrate data obtained from each student into a unified data file. This would allow the creation of a student profile across all areas of the EPIC instrument package. The creation of a unified data file will also permit cross-validation of the EPIC instrument package and research into the program characteristics as perceived by the student and their impact on student outcomes.

3. The EPIC staff needs to work with school staff members and parents to uncover "optimum" uses for all data. Examples of student performance data which should be used for curriculum planning are: 2e/2f- data on the education, training, and licensing and requirements of careers; 4b- data on the inventory of student work skills.

4. The EPIC staff needs to work with school staff members to develop procedures by which staff members can evaluate their own performance, using the career-economic data as criteria.

5. The student performance instruments provide evaluation data as to the extent of career awareness at the elementary level; the extent of career exploration at the middle and/or junior high and senior high levels; and the extent of indepth training at the senior high level. The instruments are limited to the extent that they do not provide criteria-referenced performance criteria for handicapped and disadvantaged students. (They are, however, suitable for the these students to the extent that all handicapped and disadvantaged students who took the EPIC instrument battery completed the instrument comfortability in the time allotted.)

INTRODUCTION

Since July 16, 1974, EPIC, Inc. has been under contract with the Florida Department of Education, Vocational Division, to develop a system for evaluating career, economic, and community education programs in selected Florida school districts, through the contributions of key executives of Florida business, labor and professional organizations . . . in coordination with the Florida Council of 100 . . . and with the assistance of educator-community groups in selected Florida school districts.

Florida Career Education Projects

During the early years of the 1970's, career education programs were implemented in all 67 Florida school districts. In 1970, the Mackay Committee submitted a report which resulted in the passing of eight bills which paved the way for career education in Florida. Six years later, that commitment had resulted in over $32 million in state funds for career education personnel and program development for all Florida school districts. Florida remains one of only five states which has benefited from a sizable amount of career education funding for kindergarten through 12th grade students by a State Legislature. (The other states are Arizona, Colorado, Idaho and Michigan.)

Florida career education projects developed to make students aware, in the early grades, of the need to explore a variety of occupations so that realistic career decisions could be made by students earlier in life and in time, to gather relevant knowledge and skills for employment and college entry. Included in these projects were strategies for using large numbers of community representatives and resources.

As Florida career education programs developed rapidly, with the assistance of the Vocational Division of the Florida Department of Education, examples of innovative programs developed by local school districts resulted in literally thousands of new curriculum-instructional units. These new "learning units" were developed for the use of teachers, counselors and occupational specialists, with students from kindergarten through the 12th grade, in every academic subject area. University projects such as LOOM, FAIS and PROCESS also provided valid instructional materials through working relationships with local school districts. The Florida VIEW project alone resulted in students being exposed to over 400 different careers with local training opportunities in Florida. The Vocational Division also developed guidelines for comprehensive placement/follow-up systems which were adopted by local school boards on September 1, 1974, in response to a growing intent of the Florida Legislature that, "the basic purpose of education is to prepare students to become productive, employable, and self-supporting members of society."

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EPIC Assumptions

Concurrent with this language of Florida Legislative intent, the Florida Council of 100 Education Committee, in April, 1973 conducted a National Search of school programs to determine: "What is it in the educational system that causes a large number of students to come out as non-contributing members of society?" The assumptions of the Education Committee were as follows:

> Some of our children are graduating into the job market with limited salable skills and inadequate preparation to advance in our business world. It is not just a problem of funding.
>
> As urban population pressures have increased, the role of the traditional family unit has diminished. Most children seldom see their parents at work or really understand what they do. Teachers are becoming substitute parents for our children.
>
> Today's teachers have spent their lifetimes in schools and other educational facilities, and decreasingly understand or fairly reflect the real world in which we live and into which our children will graduate. Concerned educators want to solve this problem, but find difficulty changing direction within the system.
>
> Frustration is rampant. Parents cannot understand their children. Teachers do not understand what responsibilities are expected of them by parents. Students leave schools unsure of themselves as individuals and unprepared for the world they wish to conquer. Employers are increasingly spending money and time to equip job applicants with entry-level skills.
>
> Citizens find it difficult to cope with community problems brought on by modern technology and greater leisure time. As technology has become more complex and as productivity is dependent on fewer and fewer people, the child, or the family, frequently is not directly exposed to "primary production" in the world of work. Modern technology is usually so productive that it tolerates a great many occupations which are parasitical while, at the same time, it has become too complicated for the unsophisticated to comprehend.

Need for the EPIC Evaluation System

While Florida career education projects were developing with the advancing state-of-the-art in 1974, comprehensive evaluation systems for measuring the progress of these new innovations were almost nonexistent. An examination of the few commercial and school-made career education instruments which could be found in 1974 presented still another problem. Few valid and reliable instruments for measuring these new concepts were available. Some commercial manufacturers were beginning to test instruments in selected districts across the country, but many of these appeared to have been hastily prepared for an early market, without sufficient thought given to what the instruments were supposed to be measuring. A typical test usually included items on self awareness, career awareness, career planning and employability skills without any attempt to separate these elements in the test design. Even today, most career education instruments in circulation have subtests which are combinations of these student behavior dimensions and cannot, as such, be validated (or used) as measures of specific student performances. Many of these instruments are also so general that students rarely learn anything from them.

The EPIC project has been addressed to these problems from a business person's point of view. Eighteen new student performance instruments have been developed and validated by the Statewide Evaluation Committee. These instruments contain 25 dimensions which have been continually examined by employers, and representatives of labor and professional groups, and are considered workable measures of desirable student behavior. They have also become motivating and learning tools for students, and teaching tools for teachers.

The final EPIC evaluation system as it is implemented could, therefore, become one of the more valid and comprehensive systems for measuring the profile and growth of a "career education student." It could also become a formidable battery for exposing many teachers and all students to important concepts which will help students approach their career planning decisions much earlier in life.

These products will soon be available to Florida districts to help them demonstrate the progress of their career education programs.

Economic Education in Florida

During the 1974 Florida Legislature, a bill was passed which provided that all public schools must conduct "free enterprise and consumer education programs".

In 1974, the career education programs in Florida already included an economic awareness component. Many of the usual examples of innovative economic teaching such as "taking over store operations" or "trip to the local bakery" were already being made available to Florida students.

At the organization workshop of the EPIC Statewide Evaluation Committee in November, 1974, EPIC members stressed the need to move from an "economic awareness" to an "organized knowledge of the economic system." Knowledge of the economic system eventually became the EPIC component which carried the number one priority of most EPIC members.

Somewhat surprisingly, some questionnaires developed later by EPIC appeared to be the first organized inquiry into economics attempted in the Florida schools. While talking to teachers during the pre-testing of the EPIC instrument battery, it became evident that economic education was being sadly neglected in Florida schools. EPIC results showed that a random sample of certain 12th grade students was scoring only 4.6 percent better than chance on questions of economic knowledge. Large numbers of the students did not even attempt to answer the questions.

In discussing this problem with educators, it was obvious that they wanted help in understanding the economic system and in preparing materials to present to their students.

In October, 1975 the Florida Council on Economic Education held a Statewide Conference on "Free Enterprise in Education." At the conference, methods were discussed for implementing economic education in Florida schools primarily through university-based teacher centers and nationally-recognized curriculum programs. EPIC has offered to work with the FCEE in the performance of related goals.

Community Education in Florida

The Community School Act of 1970 provided the impetus from the Florida Legislature for a number of Florida communities to involve their schools in community education. The legislation provided funds for community education coordinators to facilitate the school's involvement in the following areas:

1. Maximum utilization of human, financial, and physical resources.
2. Coordination and cooperation among institutions and agencies providing educational and personal services.
3. Providing life-long learning experiences for community members of all ages.
4. Encouraging the democratic involvement of community members in community problem solving.

Through this program, schools opened their facilities to the general public beyond the hours of the normal working day, providing increased education, recreational and cultural services for the entire community. In addition, schools began cooperative programs with other agencies and institutions in facilities throughout the community.

Projects in community education developed in several Florida school districts. Centers for community education have been established at the University of Florida, University of West Florida and Florida Atlantic University. These centers provide consultant services to the school districts of Florida as they develop their community education endeavors.

What the EPIC Instrument Battery Attempts to Measure

The EPIC instrument battery contains 25 measurable dimensions of student behavior resulting from the EPIC components, and which are reflected in Florida Career-Economic Education programs, as follows:

1) Profit
2) Productivity and the Market
3) Labor Market Demand
4) Consumer Economics
5) Business Cycles and Monetary Policy
6) The Roles of Government
7) International Trade and Monetary Policy
8) Comparative Economics
9) Worker Titles (Recall)
10) Workers in Different Industries
11) Education/Training/Licensing/Union Requirements of Jobs
12) What Workers Do on the Job
13) Knowledge About Career Planning
14) Career Planning Activities Checklist
15) Talking About Careers
16) Career Decision-Making
17) Worker Titles (Identification)
18) Career Interests
19) Job Expectations
20) Employee Work Habits
21) Employee Traits and Mannerisms
22) Interviewing for a Job
23) Inventory of Work Skills
24) Attitudes Toward School
25) Attitudes Toward Careers

The EPIC instrument battery also contains the following process variables of career-economic-community education activity:

1) Identification and Referral of Potential Early School Leavers
2) Field Trips
3) Workers Visiting Students
4) Career Days/Fairs
5) Shadowing Experiences
6) Employer-Based Cooperative Programs
7) Jobs Available
8) Student Placements
9) Student Follow-Ups
10) Economic Activities in Related Disciplines
11) Worker Titles
12) Work Skills
13) Staff Roles
14) Staff Attitudes
15) Workshop Participation
16) Parent Attitudes
17) Program, Service, Facility, Organization Demand
18) Course Registration Demand

Summary of EPIC Products

It is anticipated that, as the EPIC evaluation system is implemented, a profile of student, staff, administrative, and community performance would resemble the following:

1) Enroute to making realistic career decisions, the student begins to appreciate the workings of the economic system and the fundamentals of a work-oriented life style.

2) After exploring a number of occupations based on personal interests and labor-market information, the student investigates the education, training, licensing, and union requirements of a potential career area.

3) The student becomes familiar with working conditions, language used on the job, salary ranges and fringe benefits, and begins to form some personal job expectations.

4) Through continual contacts with community workers, and hands-on work experiences, the student begins to prefer certain jobs over other jobs.

5) The student is exposed to a checklist of career planning activities, may be identified as a "potential early school leaver," and is guided toward realistic career decisions.

6) The student is encouraged to develop skills in reading, writing, computation and communications as well as more specialized skills for employment-entry in a particular career area, and in anticipation of changing careers.

7) The student is encouraged to practice for the job interview, to develop productive work habits, personal traits and mannerisms which will accommodate the work-team.

8) The student is encouraged to make contact with the school placement advisor, and to benefit from at least one paying job before leaving high school.

9) The staff is encouraged to bring all students to local places of work; to invite workers to visit students and discuss their careers; set up career days and career centers, and to involve students in work programs and other situations where students may watch the performance of community workers.

10) The staff is encouraged to merge career and economic activities into their ongoing academic course structures.

11) The staff is encouraged to issue student grades based on the completion of assigned tasks with a minimum of supervision, and to issue certificates to students who master specified employment-entry skills.

12) The staff is encouraged to involve parents in counseling sessions with students; to share the accountability for student performance with counselors and occupational specialists; and to work in industry one month of each year.

13) Staff members are encouraged to develop a better knowledge of our economic system in the areas of:

Profit
Productivity and the Market
Labor Market Demand
Consumer Economics
Business Cycles and Monetary Policy
The Roles of Government
International Trade and Monetary Policy
Comparative Economics

14) Community members are encouraged to coordinate local facility utilization with contact personnel and to provide educational, recreational, and cultural services on a year-round, extended-hours basis for every member of the community.

15) Community members are encouraged to participate in the development and implementation of educational policies and in the evaluation of resulting programs.

METHODS

Project Coordination Schedule

Each Phase of the EPIC Project (I though VI) was initiated with the submission of a "Program of Work," and a coordination meeting between the EPIC Contract Coordinators in the Vocational Division and the EPIC Project Manager, as follows:

July 19, 1974 - Submission of the Program of Work for Phase I . . . to "Organize the Statewide Evaluation Committee."

July 24, 1974 - Coordination meeting in Tallahassee.

August 21, 1974 - Submission of the Program of Work for Phase II . . . to "Define and Validate the Components of Career, Economic and Community Education in the Florida Schools."

August 22, 1974 - Coordination meeting in Tallahassee.

October 27, 1974 - Submission of the Program of Work for Phase III . . . to "Develop a Set of Criteria and Related Instruments for Evaluating the Components."

October 31, 1974 - Coordination meeting in Tallahassee.

February 13, 1975 - Submission of the Program of Work for Phase IV . . . to "Perform an External Evaluation in Three Selected School Districts for the Purpose of Validating the EPIC Instruments."

February 13, 1975 - Coordination meeting in Tallahassee.

January 28, 1976 - Submission of the Program of Work for Phase V . . . to "Develop a Set of Evaluation Guidelines."

January 28, 1976 - Coordination meeting in Tallahassee.

May 4, 1976 - Submission of the Program of Work for Phase VI . . . to "Conduct a Two-Day Training Workshop for the Staff of the Vocational Division of the Florida Department of Education."

May 4, 1976 - Coordination meeting in Tallahassee.

Project Activities

The following statements of EPIC performance are in accordance with Phases I, II, and III of contract 750-010 and Phases IV, V, and VI of contract 760-013 with the Vocational Division of the Florida Department of Education. Miscellaneous documents related to these performances are on file in the Bureau of Research, Dissemination and Evaluation, in the Vocational Division.

Phase I - Organize the Statewide Evaluation Committee

1) An EPIC, Inc. Board of Directors meeting was held on August 1, 1974, for the purpose of organizing EPIC efforts related to the contract.

2) A compendium of proposed EPIC memberships was submitted to Bill Dover (EPIC President). This compendium was distributed to the EPIC Board of Directors on August 26, 1974. The EPIC board members and project manager telephoned the prospective members to qualify their interests.

3) Forty-four (44) prospective members (including the 6-member EPIC board) were qualified by telephone, as each indicated some degree of interest in the EPIC project. A notebook was distributed to each prospective member and to the VTAE Division. The notebook contained the following:

   a) The prospective membership roster
   b) A letter of invitation to all prospective members to join the Statewide Evaluation Committee and to attend the November 12th workshop.
   c) A position paper on Career-Economic-Community Education by the EPIC Board of Directors.
   d) Three related documents, as follows:

      * A Partial Review of Florida Legislative Intent Affecting Career-Economic-Community Education.

      * A Partial Review of Career-Economic-Community Education Concepts.

      * An Introduction to Career Education.

4) In response to the letter of invitation, some prospective EPIC members sent a letter of acceptance to the EPIC project office with appropriate signature.

5) At the November 12th Workshop, each EPIC member received a packet of forms which included:

   a) A timetable of EPIC project events.
   b) A list of project interest areas for task force assignments.
   c) A resolution of support for the EPIC project.

6) The Florida Council of 100 Education Committee met on November 13th. The committee resolved that the EPIC project was too important for the Council of 100 Education Committee to proliferate other projects.

This concluded the EPIC Phase I activity in accordance with the following contractual statements:

I-A Conduct a comprehensive search to determine possible members for the Statewide Evaluation Committee.

I-B Send out letters of invitation and elicit responses.

I-C Determine the committee membership and distribute a resolution for support of this project.

Phase II - Define and Validate the Components of Career, Economic and Community Education in the Florida Schools.

1) At the EPIC, Inc. board meeting on August 1, 1974, the EPIC project manager submitted (for discussion purposes) a partial list of career-economic-community education components.

2) In accordance with the suggestions of EPIC board members, the EPIC project manager summarized a number of positions taken by the Florida Council of 100 Education Committee on career-economic-community education, on August 5, 1974.

3) The EPIC board members submitted critiques of the position statements to the EPIC project office.

4) The project manager, on September 10, 1974, developed a set of components and goal statements and some examples of evaluation criteria from the EPIC board members' critiques.

5) A fourth related document was submitted to the EPIC board for review:

   * A Partial Review and Synthesis of Community Education Concepts.

6) The EPIC board submitted final critiques. The project manager used these to develop a revised set of components and goal statements, and submitted them to the EPIC president for review on October 24, 1974.

7) The project manager developed:

   * A Project Director's Inventory of Career Education Components which may be Evaluated in Florida's Schools

   for review by Florida's Career Education Project Directors at the Statewide Evaluation Conference on September 30, October 1, 2, 1974. The feedback data from the directors at this conference was used to consolidate some of the sub-components related to each EPIC component, from an educator's point of view.

8) The six-hour November 12th workshop on career-economic-community education components (referred to in Phase I - 5) was the organization meeting of the Statewide Evaluation Committee. The comments of EPIC members, when viewing staff members and students demonstrating the EPIC components, was most rewarding. The comments included such terms as "Beautiful," "Thrilling" and "The most exciting things seen in education."

9) The ongoing comments of EPIC members, resulting from this workshop, are listed.

10) A revised set of career-economic-community education components was developed from the comments of EPIC members. This document was reviewed by the EPIC membership and the EPIC president, until consensus was reached and was submitted to the EPIC Board of Directors, the Statewide Evaluation Committee, and to the director of the VTAE Division (on December 18, 1974).

This concluded the EPIC Phase II activity in accordance with the following contractual statements:

II-A The project manager of EPIC, Inc. will identify a number of career, economic and community education components for review by the Statewide Evaluation Committee.

II-B The Statewide Evaluation Committee will review and approve, disapprove or resubmit to the project manager of EPIC, Inc. the statements of components. When consensus is reached, EPIC will submit the components to the director of the VTAE Division.

Phase III - Develop a Set of Criteria and Related Instruments for Evaluating the Components.

1) On January 27, 1975, the Statewide Evaluation Committee received a letter from Bill Dover requesting the committee's review and translation of the Phase II component language into Phase III criteria. The committee submitted endorsements of proposed criteria with some modifications.

2) Two sub-contracts produced the following sets of documents:

   a) A National Search for Career and Economic Education Instrumentation.

   b) A National Search for Community Education Instrumentation.

   (The national search instruments were forwarded to the EPIC contract coordinator in the VTAE Division under separate cover, due to the extraordinarily large volume of documents.)

3) All of the national search instruments were reviewed by the project manager and were categorized in accordance with the relationship of each instrument to the EPIC criteria.

4) 25 EPIC instruments were designed in accordance with 25 EPIC criteria and in an attempt to plug up some of the gaps in the state-of-the-art left by the national search instruments. These instruments and criteria were submitted to the full Statewide Evaluation Committee for review and modification.

5) Two EPIC board meetings were held for the purpose of reviewing and modifying the developing instruments. (The first on March 12th, the second on March 21st.)

6) Each EPIC task force submitted their comments on different instruments.

7) Four complete revisions of the instruments were submitted to the contract coordinator in Tallahassee:

   a) The first revision resulted from the advice of the March 12th EPIC board meeting. (25 instruments.)

   b) The second revision resulted from the advice of the March 21st EPIC board meeting. (The 25 instruments were consolidated into 12 instruments.)

   c) The third revision was submitted following the comments of the EPIC task forces during the Broward County field run (April 10 through April 22, 1975), and in response to the data analysis of that field run (12 instruments were further consolidated into 9 instruments).

   d) The fourth revision was submitted as a result of the Pinellas County pilot test (May 12 through May 16, 1975), and in response to the comments of the EPIC task forces during that time.

8) The director of the VTAE Division obtained clearance from the superintendants of the Broward and Pinellas County school districts for testing the EPIC instruments, and submitted written approval to the EPIC project manager. 1191 students, 181 staff and 179 parents contributed data during the field run and pilot test in these districts.

9) A report of EPIC progress was given to the participants of the Statewide Career Education Project Director's Workshop on May 8, 1975, and was forwarded to the EPIC membership on May 9th.

10) A number of statewide and local associations have endorsed the EPIC project by board resolution.

11) The Dade County Public Schools presented a demonstration of career-economic-community activities which involved business and industry representatives from the greater Miami area. This demonstration was in direct response to a meeting between EPIC member Charles Potter and the Dade County superintendant, following the November 12th EPIC workshop.

12) Several members of the EPIC task forces submitted comments regarding the overall EPIC project.

This concluded the EPIC Phase III activity in accordance with the following contractual statements:

III-A The project manager of EPIC, Inc. will develop evaluation criteria for each identified component.

III-B The project manager will perform a search for career education instrument capability and will develop additional instruments needed to meet the criteria.

III-C The project manager will submit the criteria and instruments to the Statewide Evaluation Committee for review and approval, disapproval or modification, and will then submit the criteria and instruments to the director of the VTAE Division for concurrence.

III-D The VTAE division director will identify schools for pilot testing and will secure permission from the district school superintendent, with a schedule for the instruments to be pilot tested.

III-E The project manager of EPIC, Inc. upon receiving the approval of the director of the VTAE Division (on the criteria, instruments, and schedule for testing), will proceed with a pilot test of all instruments and forms in the selected schools.

III-F The project manager will submit a report to the director of the VTAE Division which will include the components, criteria, instruments and procedures for the proposed evaluations.

Phase IV - Perform an External Evaluation in Three Selected School Districts for the Purpose of Validating the EPIC Instruments

1) The Vocational Division director selected the Florida school districts of Broward, Orange and Pinellas for external evaluation.

2) The EPIC Board of Directors met on July 29, 1975 at the new EPIC project office, 2411 East Las Olas, Fort Lauderdale.

3) The condensed version of the Final Report of Phase I, II and III activity was accepted by the EPIC board and distributed to members of the Statewide Evaluation Committee and to selected executives of statewide associations with whom EPIC had been corresponding.

4) The Statewide Evaluation Committee members were polled for their commitment to the EPIC project for a second year. Executives of statewide associations were also invited to join the Statewide Evaluation Committee.

5) The conditions for the pre-tests of EPIC student product instruments were negotiated with the project directors of the three school districts.

6) Bill Dover directed the EPIC project manager to set up an EPIC speakers' bureau. The Florida Retail Federation requested an EPIC presentation at their annual conference, September 26, 1975.

7) The pre-testing of 625 students (grades 2 through 12) in the Broward, Orange and Pinellas school districts on 23 dimensions of career-economic education, using 6 instruments, began on September 29th (Orange) and was concluded October 17th (Pinellas).

8) The EPIC staff reduced and analyzed all pre-test data on student performance.

9) EPIC, Inc. began the development of an evaluation system for the Broward, Orange, and Pinellas High School Consortium (the BOP project), in accordance with the request of the BOP coordinators and the directive from Bill Dover to "assist and support related Florida projects."

10) EPIC staff members attended the Florida Council on Economic Education (FCEE) Conference on October 28-30, 1975 in Orlando. EPIC has endeavored to coordinate EPIC activities with those of the FCEE.

11) EPIC, Inc. coordinated a media and speakers' bureau program for the Educational Sub-Committee Report to the Florida Council of 100 General Assembly at their semi-annual meeting in Palm Beach, November 7, 1975. Commissioner of Education Ralph Turlington opened the program with a presentation of the 10 EPIC components.

12) An EPIC instrument validation workshop was held for Orange County staff on November 25, 1975.

13) Instrument development summaries were submitted to selected members of the Statewide Evaluation Committee on a specialized basis for each EPIC instrument. Final critiques were requested to culminate at the EPIC January 16th conference.

14) The second EPIC instrument validation workshop was held in Broward County on January 13, 1976. Three district administrators, a high school principal, two parents, and a member of the business community participated with staff members in the further validation of EPIC instruments.

15) Pilot data was collected using the Administrative/Staff Interview Instrument; this data was reduced and distributed to EPIC and lay-community members at the January 16th conference for their review.

16) A training session in the use of EPIC instruments, the scheduling of post-test data collections, and procedures for testing and other data collections in the Orange, Broward and Pinellas school districts was held for all members of the EPIC Statewide Evaluation Committee and lay-community members from the three school districts, at the combined conference for EPIC, Florida legislators, and career-economic education specialists from the three school districts, and community education specialists from Alachua County and the University of Florida.

17) Dr. Phillip Clark developed additions to the present community-school facility utilization instruments.

18) The schedule for post-testing and related data collections in the Broward, Orange and Pinellas school districts is arranged, together with the tentative commitments of EPIC and lay-community members who will participate in this procedure.

19) EPIC held its final instrument validation workshop in Pinellas County on February 18, 1976, where teachers, counselors, occupational specialists and business representatives suggested modifications to almost all of the instruments.

20) 980 students, 265 staff, and 86 parents contributed data during the March, 1976 post-tests. Several instruments at the elementary level were revised mid-way through the post-tests. The data collection procedures were revised continually until all students completed the respective instrument sets comfortably within similar time limits.

21) Data collected during the March post-tests were reduced and analyzed by members of the EPIC staff.

22) A report of preliminary findings was submitted to the Statewide Evaluation Committee on April 30, 1976 for the purpose of eliciting recommendations.

23) A report of the findings, conclusions and recommendations was submitted to the director of the Vocational Division on May 5, 1976 for his review, acceptance and approval.

Phase V - Develop a Set of Evaluation Guidelines

1) A set of evaluation guidelines in booklet form was submitted to the director of the Vocational Division on March 1, 1976. These guidelines include the purposes of the evaluation, the components, criteria, instruments, procedures, cost factors, and suggestions of strategies for organizing resources used in conducting evaluations.

Phase VI - Develop Separate Guideline Publications for Elementary, Middle/Junior High and Secondary Educational Levels

Final Report - Phases I through VI

This concluded the EPIC Phase IV, V and VI activities in accordance with the following contractual statements:

IV - A. The VTAE Division director will select three school districts and will make arrangements for external evaluations to be conducted in each district. The arrangements for external evaluations will include schedules for testing and the clearance of instruments and procedures for data collection.

IV - B. EPIC, Inc., together with appropriate members of the Statewide Evaluation Committee, and members of the local communities, will perform the third party evaluations in the three school districts for the purpose of validating the EPIC instruments.

1. Members of the Statewide Evaluation Committee will designate lay-members of the three selected communities to assist in the evaluation of those community school districts.

2. EPIC, Inc. will hold a training session for all members of the Statewide Evaluation Committee and lay-members of the local communities who will assist with the evaluations. The session will include training in the use of the instruments developed in Phase III, and procedures for scheduling, testing, and data collection in the selected schools.

3. EPIC, Inc. will assist the members of the training session in conducting the third party evaluations of the three selected school districts, so as to guarantee the adequacy and completeness of the data collection.

IV - C. EPIC, Inc will reduce and analyze the data.

1. Data will be reduced and analyzed in accordance with format established in Phase III.

2. All reduction and analysis of data will be performed by members of the EPIC staff to guarantee consistency of data handling on a specialist basis throughout the reduction and analysis.

IV - D. EPIC, Inc. will report the preliminary findings of the evaluation to the Statewide Evaluation Committee for their consideration in drawing conclusions and making recommendations.

1. Members of the Statewide Evaluation Committee who assisted with the evaluation may share the findings with the lay-members of the local community.

2. Members of the Statewide Evaluation Committee may make other recommendations regarding release, distribution, and use of the findings and data.

IV - E. EPIC, Inc. will submit a report of the findings, conclusions, and recommendations to the director of the VTAE Division for his review, acceptance and approval.

V. EPIC, Inc. will develop and present a set of evaluation guidelines in booklet form for use in the VTAE Division evaluation system; such guidelines will include the purposes of the evaluation, the components, criteria, instruments, procedures, cost factors and suggestions of strategies for organizing resources used in conducting evaluations.

VI. EPIC, Inc. will hold a two-day workshop for staff of the Vocational Division not later than June 30, 1976.

Final Report

EPIC, Inc. will submit a Final Report, using the Directions for Preparing Final Reports of Research Related Projects supported by the Vocational Division of the Florida Department of Education.

A SYSTEM FOR EVALUATING CAREER-ECONOMIC-COMMUNITY EDUCATION

TEN COMPONENTS OF CAREER - ECONOMIC - COMMUNITY EDUCATION

Since April of 1973, when the Education Subcommittee of the Florida Council of 100 set out a list of educational goals, the members of the Council and, eventually, the EPIC Statewide Evaluation Committee have continually tested their language on a "consensus" basis. The resulting ten components of career-economic-community education reflect the "consensus" of EPIC members as well as the participants of the Orange, Broward and Pinellas Workshops (November 1975 through February 1976).

The EPIC career and economic components (1 through 9) were demonstrated in November, 1974 by staff specialists from the Pinellas career education project and, again, in January, 1976 by staff specialists from the career education projects of the Broward, Orange and Pinellas (B-O-P) districts, indicating that each component represents a viable part of the ongoing programs in each district.

The Alachua and Lee County project directors, with the Director of Community Education from the University of Florida, presented the community education component (10) at both (1974 and 1976) conferences. (Community-school education is not yet a fully accepted concept in the B-O-P school districts.)

The resulting ten components are presented on the following page.

EPIC components 1, 2, 3 and 4 deal with student performances which EPIC members consider highly desirable. Component 5 is both a measure of student performance and a process. Components 6, 7, 8 and 9 are process components of career and economic education programs. Component 10 deals with community education processes and outcomes.

TEN COMPONENTS OF CAREER-ECONOMIC-COMMUNITY EDUCATION (Final - May 1, 1976)

#1 - KNOWLEDGE OF THE ECONOMIC SYSTEM: Students and teachers should understand the development and workings of our free enterprise system . . so that students may become aware that society is offering them an opportunity to prepare for a career and to provide for themselves in an economic world.

#2 - KNOWLEDGE OF OCCUPATIONS: Students should be encouraged to review labor-market information on available careers and to explore a variety of different work situations.

#3 - GUIDANCE FOR REALISTIC CAREER DECISIONS: Students should be encouraged to plan systematically for a career and become better prepared to make realistic career choices, in terms of their own interests, abilities, achievements and limitations, even as they anticipate changes in careers.

#4 - EMPLOYMENT-ENTRY SKILLS: Students should be provided with "hands-on" experiences which emphasize how academic and vocational skills are used in the working world. These experiences should lead to certificates of skill mastery to encourage students to believe that because of their education, they will not only "fit in," but will eminently succeed in our economic world.

#5 - ALTERNATIVES FOR POTENTIAL EARLY SCHOOL LEAVERS: Potential early school leavers should be encouraged to enter programs which develop skills in basic reading, communications and computation, career exploration, and skills for acquiring and working on a job.

#6 - STUDENT-WORKER CONTACTS: Students should be provided opportunities to make contact with all levels of working adults throughout the community to qualify their interests before choosing specific careers and related life styles.

#7 - PLACEMENT AND FOLLOW-UP: Students should be given the opportunity of employment or some other appropriate placement, such as higher education, before leaving school, through operational placement/follow-up systems staffed with qualified persons.

#8 - STAFF DEVELOPMENT: All administrators and staff should be provided in-service training using career and economic education strategies. Teachers should issue grades based on the completion of assigned tasks to develop students' self-confidence through trial and error performances, so that they may gain greater motivation to try and complete other tasks with less supervision.

#9 - COMMUNITY INVOLVEMENT: Community members should be involved in the planning, implementation and evaluation of educational programs.

#10 - COMMUNITY-SCHOOL FACILITY UTILIZATION: School-community agencies should cooperate for more efficient and flexible (year-round/round-the-clock) use of community facilities, resources and programs to provide educational, recreational and cultural services for every interested member of the community.

COMMENTS OF STATEWIDE EVALUATION COMMITTEE MEMBERS

With the November 1974 opening workshop, a proposal was made for Florida to stress career-economic-community education. Educators and business people should be a team, with a total philosophy. All of us are responsible for the events in schools and business.

Schools are operating on old theories. Are we going to be big enough, and have the strength to change things? We have the problem of lack of interest and lack of openess in the system. How does a business person explain what he/she wants? (Members wanted to know what the schools were doing and what they, the members, should do to get the EPIC components into action.)

Reactions to the live demonstrations by Pinellas specialists at the November 1974 Workshop were: "Thrilling" . . . "Beautiful" . . . "particularly valuable as a vehicle for working with basic values and basic American institutions." . . . "A vehicle for encouraging business values that helps students provide for themselves, as well as for all adults to affect the process of child value development."

Epic should be 'sold' via newspapers, radio, T.V., mail and a speakers' bureau . . .

The EPIC business community should offer: (1) an active speakers' bureau for classroom appearances and teacher seminars, (2) teacher seminars explaining current business methods, and (3) worthwhile individual efforts to explain today's economic system.

The business community must become fully involved if this program is to work, I feel encouragement must come from the top of the education process in Florida.

I feel it will help upgrade our industries.

The components more than adequately cover training our students to better prepare themselves for adulthood.

The comments on the following pages were used in the development of the 10 components of career-economic-community education.

Comments on Component #1 - Knowledge of the Economic System

Economic Awareness should be changed to Economic Knowledge so that it will have more impact. People should learn to provide for themselves, and not think that the world will provide for them. Textbooks should be written around things that are more relevant to our economic world. Children know their rights but not their responsibilities.

Changing Economic Awareness to Economic Knowledge as agreed on will add strength to this very important educational field. It is an excellent approach to a very needed curriculum in our schools.

Knowledge of the economic concepts prepares the student to take his/her part in society as a contributing citizen and as an intelligent consumer. This knowledge will enable students to evaluate trends, events, and policies and to predict their outcomes. If the educational process does not equip the student to do this, opinions, votes and actions will too often be based upon rumor, hearsay, popular opinion, and custom.

Economics should start in the elementary grades, by relating studies (such as fractions) to meaningful examples in the economic world (such as the interest paid on car or home appliance loans).

Must establish a belief system from which future decisions will be made. Both teachers and students should be examined on: Understanding of the "Freedom of Choice" role of the individual in the Free Enterprise System vs. Bureaucratic Planning and Decisions in a Socialist Economy; knowledge of the relationship of Productivity and standards of living in the domestic and international economy.

I would like to see the phrase "free enterprise" used in this criteria to describe our economic system.

Comments on Component #2 - Knowledge of Occupations

The EPIC program needs to be geared to represent all levels of occupations, e.g. dishwasher - executive.

Data collected will have to be more specialized after the collection of initial data. Occupations are too diversified for extensive generalizations. Personal work patterns desired. Worker contacts in relevant occupations should be stressed.

I suspect all broad areas of employment could be broken down into a relatively few a la Yellow Pages. This would permit children to shop and change until they find a general field they like.

Comments on Component #3 - Guidance for Realistic Career Decisions

The system should prepare people for different careers with the option of changing a career choice if desired. Emphasize more career guidance. Tell young people (K-6) about what to expect when they come out in the world. Show Middle school children as many vocations as we can. Get High school youngsters ready to make their own decisions about what kind of work they'd want to do, or if they want to consider continuing their education.

Career counseling is available but it is up to the students to seek it. Abilities and interests must be identified as early as possible so that a high level of job satisfaction may be realized with a chosen profession.

Realistic is the key word here, both in choosing a profession and in the ability to prepare for it. Counselors and teachers must be realistic in their guidance . . all students won't become professionals and there are many advantages to being able to do semi-skilled jobs well.

Parent instruction should be the basis of career counseling. The advice of well-informed parents who know their childrens abilities and limitations is probably the most critical help a child can receive.

Comments on Component #4 - Employment-Entry Skills

Children should be taught the 3 R's and should be able to use these everyday in their daily lives. The teaching of educational disciplines is an important factor in learning. Have students acquire the knowledge in school of what they are going to have to do in the business world. Much of education has been programmed for further education.

In all of my conversations with young people of college age and pre-college age, I find the same lack of awareness of how education can help fit them for our economic society. A constant complaint is voiced that unless they have studied for a specific profession, they cannot see how their education has prepared them to make their way. Fortunately, I see less of the earlier attitude of young people... that they don't want to fit into our so-called establishment, but a strong feeling seems to be now evidenced that they don't know how to go about doing it. Schools must train people to do effectively those types of work that need to be done.

If we had our way, every child would be taught shorthand and typing. The ability to take notes and transcribe has never been fully recognized as a lifelong useable asset.

We are primarily interested in increasing skills in written and verbal communications. In addition, those skills that require quantitative thought and simple mathmatical computation can be invaluable to a future employee.

Comments on Component #5 - Alternatives for Potential Early School Leavers

Those who drop out of school early must be trained in a meaningful endeavor in order to make a contribution to society. We certainly don't want them to become another statistic living off the federal government dole.

It appears to me that this could be one of the most important of the components. It seems to me it would be desirable to devise a system to get the message to probable drop-outs in earlier years before they have established irreversible patterns. If the teacher could do an evaluation at grades three through five I would think it would be the time to start the programs of basic reading and career exploration. If a challenge can be offered at that age perhaps the child would never reach the position of giving-up and ultimately becoming a drop-out.

Comments on Component #6 - Student Worker Contacts

We in the business world need to speak to teachers and students to give them a better understanding about our business.

Starting in the Junior High Schools, have industries become involved in Career Days. A good relationship between the school personnel and the local businessman should be established. This can be created by getting the businessman and educators to associate with each other more often. Some teachers and school personnel think that business people are trying to run their schools. The businessman's system and the educator's system should be combined to make one system for helping everyone.

We cannot over-emphasize the importance of this goal. It is easier to bring the child to the place of employment. Care must be exercised that the child visits not one plant, but ten, not one store, but a dozen, etc. It has been our experience that the value of this contact is almost wholly dependent on the charisma of the working adult.

Comments on Component #7 - Student Placement and Follow-Up

This is another responsibility employers must be made to accept. Most are willing . . they just do not know how. Our company does quite a bit of on-campus recruiting at the high school and college level. We should ascertain how wide-spread this practice is in other industries. In many slots, we employ high school students with the hope they'll return to our industry.

We can train people here in Florida to take the jobs that are offered here. Encourage students to work, with the understanding that they will get paid for their work accordingly. Encourage employment agencies to give schools data on jobs available for students, and then follow-up on those students when they leave school. Minimum wage laws and child labor laws are problems that are always present.

Comments on Component #8 - Staff Development

There is a need for changing the methods in schools and solving basic problems with teachers. Teaching techniques of the teachers will have to change. Teachers will have to be better educated about Career-Economic-Community Education.

In the future, teachers of many skills such as languages, the manual arts, mathematics, and journalism, should be required to have several years experience in the real world of work as a prerequisite to teaching. The Economic Community must be held responsible for acquainting teachers with job descriptions covering every phase of life employment. Need widespread employment of in-service days as education-in-business days. Encourage Council members to foster teachers training programs in their companies and their communities.

Perhaps the most important component in order to guarantee the success of the program. This could, and should be, a joint effort of the Florida Educational Department and the business community. The business community must become fully involved if this program is to work... I feel encouragement must come from the top of the education process in Florida.

Staff should be oriented with the actual work environment. Let them spend days with employers and see actual operations.

The fear of failure is one of the things that has caused the tremendous rate of drop-outs. Both 'degree of difficulty' and 'independent, self-directed' effort should be grading considerations.

Grading based on the performance of assigned tasks should challenge the student to compete with himself, create a mental toughness. We should get into the business of measuring progress and determine what is satisfactory. We may be too small to do anything about the grading process.

Students should progress through a series of objectives, so we know that they can perform satisfactorily in the industrial world. Students should be prepared for given objectives which will satisfy their needs. We should enable a student to reach a goal even if it takes him a little longer than the average student. Although some students are slower than the rest, they should not be left out. The student should be satisfied with himself first, for then he will be able to understand relationships with others.

We must remember young people at K-12 age have not grasped the need for self motivation and consequently among the vast majority will do only a portion of what is demanded of them.

If the educational process does not produce self-directed citizens, we have failed the student and the society we are destined to serve. In the economic world, performance determines advancement and higher compensation; students should be prepared for this economic fact.

This ability to complete tasks with a minimum of supervison is a good approach if it does not allow unqualified students to pass on to the next grade. By this, I mean the student who is graded on completing an assigned task who took 3 weeks, as compared to a class average of 1 week . . . I honestly feel this would only handicap both the student and the future employer.

Comments on Component #9 - Community Involvement

One way to develop community involvement is to bring home to the business person the high percentage of tax dollars going to education.

This is what the whole thing is about. Everyone benefits if everyone participates.

Suggest EPIC members participate in Junior Achievement and 4-H Club activities.

This component is an excellent description of the general responsibility of everyone connected with the educational system. Very well said! Requirements are: highly motivated people, a great deal of latitude, and many more dollars. The mechanics for doing this are already there.

Comments on Component #10 - Community-School Facility Utilization

Make schools available to the students and teachers year-round, round-the clock. Interests should be more developed in Junior Achievement and Distributive Education.

I agree that many hours of wasted possibilities exist. They should and can be used. Important! This goal is really the 'name of the game'. The first task is to secure the enthusiastic cooperation of education, parents, business, and students. The task we are undertaking is formidable primarily because as business people we're too prone to shove problems like this to the bottom of the pile. I hope we've got the patience to see this through.

I feel that this part of the program should be coordinated with and through the Distributive Education Department of the Florida Educational Department (DECA).

EPIC COMPONENTS IN THE MEDIA

Re: Component #1

St. Petersburg Times 4/25/75, Received from Jack Lake

Why are so many Americans hostile to business?

Question: "Grassland is a country in which there is very little government ownership of farms and businesses. People may train for jobs and start businesses as best they can. The government does not usually control prices and wages." What type of economic system does Grassland have?

SHOCKER NO. 1: Only 25 per cent of students in 13,000 junior high school systems confronted with this statement by testers for the Joint Economic Council on Education recognized Grassland's as a "capitalistic" system. The majority opted for "communistic," "socialistic," "cooperative" — or "don't know."

Question: Average corporate profits take about 25 cents out of each sales dollar. True or false?

SHOCKER NO. 2: The average U.S. citizen thinks corporate profits amount to 28 cents out of every sales dollar and even stockholders think after-tax corporate profits average 23 cents on the sales dollar, according to an Opinion Research Corp. poll. The actual figures range between 3 cents and 5 cents out of a dollar.

Question: All the nation's 60,000 social studies teachers, who are those most likely to teach economics, must have an extensive formal training in economics. Yes or no?

your MONEY'S worth

sylvia porter

SHOCKER NO. 3: Only half of the 60,000 have had any formal training in economics at all — much less extensive education. The basic cause of our economic illiteracy can be traced to the beginning of the educational system in the U.S.

Among high-ranking corporation executives in our land, the feeling is growing that Americans really hate — or at least have a deepseated hostility toward — American business.

But why? Is it because American business is so indifferent to the basic needs of American citizens, so callous about decent priorities, the like? Or is it because there is such widespread misunderstanding and lack of awareness of how our economic system functions — how it creates jobs, trains workers, tries to meet ballooning needs in the areas of housing, energy, education, etc.?

ON THE SIDE of the economic illiteracy explanation is Thomas E. O'Hara, chairman of the board of the National Association of Investment Clubs and chief spokesman for thousands of small groups of individual investors from coast to coast. To help revive the investment club movement — which is climbing slowly back after an understandable decline during the prolonged slump in stock prices — O'Hara has enlisted a blue-ribbon volunteer committee to help combat ignorance of how our system works. Among its members: New York Stock Exchange Chairman James J. Needham, The National Association of Manufacturers' E. Douglas Kenna, RCA Corp.'s Robert W. Sarnoff and Champion International's Karl R. Bendetsen.

The heart of "Campaign 1976" (its official name) will be the distribution of millions of pocket-size pamphlets, each dealing with a frequently misunderstood aspect of our economy, by the corporations in their ordinary mailings to stockholders, customers and employes.

O'HARA'S IS A well-meaning approach — but the fundamental question remains: Is the public hostility a reflection of illiteracy or of increasing public distrust of publicized business practices?

Consider, for instance, how the image of business in America has continued to slip in recent years — underlined by findings of similar Lou Harris polls in 1966, 1971 and 1973.

√ 92 per cent of the public felt in 1966 that business was developing new products for research. By 1973, the proportion was down to 69 per cent, despite years of vast work.

√ 75 per cent of the public felt in 1966 that business was bringing better quality products to the market. By 1973, a minority of only 42 per cent felt it was doing its primary task well.

√ One out of four Americans felt in 1966 that business leadership was helping to rebuild the cities. By 1973, that had declined to an even more puny 16 per cent.

Economic illiteracy in America is a fundamental threat to the survival of our capitalistic system. Of that, I have long been convinced. But pocket-size pamphlets will hardly make a dent in the distrust. The hostility is based on actual deeds, is much more deep-seated than could be explained by ignorance alone.

Re: Component #1
Received from Stuart Patton April 4, 1975

'An Interest in Making Money'

Students Turning to Economics

By CAROLYN JAY WRIGHT
Herald Financial Writer

"College students today seem more concerned about their place in the world than the problems of the world," said an assistant dean of the University of Florida's school of business administration.

Dr. John Faricy, like other educators in Florida and around the country, has observed a dramatic increase in the number of students enrolled in economics and business-related courses.

At the University of Florida, the increase is 15 per cent. At Florida State University in Tallahassee it is between 10 and 12 per cent and at the University of Miami the boost has been about 9 per cent in business administration and 5 per cent in finance.

OTHER AREAS OF the country have reported even larger increases.

At the University of Georgia, the number of students taking economics courses has swelled 155 per cent to 1,097. At Northwestern University in Chicago registration is up 50 per cent since the 1971-72 school year and at the University of Massachusetts the increase is 40 per cent.

Why?

". . . Primarily because of the general economic conditions in the nation," said Dr. David Kamerschen of the University of Georgia.

BECAUSE "no one ever saw a bankrupt accountant," said Dr. Edward J. Fox, dean of the UM's school of business administration.

And, because "students are concerned about their own economic security when they get out," according to George Treyz, a professor at the University of Massachusetts in Amherst.

Dr. Fox of the UM, Dr. Faricy of the University of Florida and Ray Solomon, dean of Florida State's college of business administration, agree that bad economic conditions and rising unemployment have led students to sign up for more "practical" courses.

Students apparently sense what the College Placement Council, a nonprofit organization of employers and college placement officers, has already learned. Employment prospects for liberal arts graduates this year are bleak.

THREE-FOURTHS of the employers responding to a College Placement Council survey said less than 10 per cent of their openings are filled with liberal arts graduates.

Employers, influenced by the recession and aware of a long-term trend toward fewer jobs in teaching and the social services, seem to prefer the more practically educated graduate.

And female as well as male students seem to have gotten the message. Between 25 and 33 per cent of the students applying for admission to the University of Florida's school of business administration next semester are women.

At Florida State, an aggressive recruitment program, financed by the Continental Illinois National Bank & Trust Co. of Chicago and aimed at persuading more women to enroll in business, banking and financial classes, is under way.

NEITHER THE University of Florida nor Florida State offers secretarial courses in its school of business administration.

At the Florida universities, the increased enrollment in business-related courses began in late 1973 or early 1974, about the same time the recession started.

The UM increase began last year, officials said. The University of Florida's jump occurred between the fall of 1973 and the fall of '74. Florida State first began detecting the increase about 1 ½ years ago.

Although the percentages quoted by university officials apply to undergraduate students, the number of post-graduate applicants and adults returning for credit or non-credit courses have also increased, school representatives said.

The state and national trend indicates a renewed interest in making money, Dr. Fox of the UM said.

"I'm not suggesting that is either good or healthy," he said. "It's just a simple fact.

Submitted by: Bill Dover July 27, 1975

THE TAMPA TRIBUNE
AND
The Tampa Times

Business Notes

By Dan Deibler
TRIBUNE
BUSINESS WRITER

Business Principles Are Being Re-Taught

Somewhere along the line, American education got away from teaching the basic principles of the way this country does business, events of recent years have brought out clearly.

The result has been a nationwide effort t[illegible] insert in school curricula courses and "learning experiences" which will help American youth to at least an elementary knowledge of the operation of free enterprise. Along the way, an effort to teach consumer education was added to the package.

To date, results are difficult to determine in this reeducation program, but it is gradually slipping into high gear throughout the country.

ON THE NATIONAL level, the Chamber of Commerce of the United States, obviously a vigorous backer of an enterprise like this, reports successful testing last year of a Chamber-backed package course called Economics for Young Americans.

"The course," the Chamber says, "relies on professionally developed tools packaged in a kit. All of it comes in a handsomely designed box containing four filmstrips, cassette recordings and printed scripts on the subjects 'The Promise of Productivity', 'Products at Work', 'Money Matters', and 'Business Means Business About Ecology.'"

The course was tested in secondary schools of South Huntington Public School District 13 in Long Island, N.Y.

IT WAS GENERALLY well received by both teachers and students, according to the Chamber, although some of the quoted comments from educators indicated they felt the material might be biased on the business side.

The school district's director of academic services, for instance, said there was no weakness in the material itself "because obviously it's designed to sell a point of view. A good teacher would balance some of the material in there with other comments."

Another said the guides review a "lot of fundamentals that you could find in almost any economics course. . . but it does promote a point of view."

Chamber promotion of the course is scheduled to continue this year, with materials being made available to schools throughout the country wherever local, or other, business will act as sponsor.

AT THE STATE level, the Florida legislature this year passed and Governor Reuben Askew signed on May 20, a bill which provides, among other things, that "The public schools shall each conduct a free enterprise and consumer education program in which each student shall participate."

The bill as passed by the House called for it to take effect July 1, although Tampa sources say they believe it was later modified to become effective in October.

This bill follows a series of other legislation, the latest last year, to the same general effect but, academic sources say, less specific in detail.

THIS YEAR'S BILL, for instance says, "the program shall provide detailed instruction in the day to day consumer activities of our society. . . the program shall provide a full explanation of the factors governing the free enterprise system, and the forces influencing production, distribution and consumption of goods and services. It shall provide an orientation in other economic systems."

The bill further details many of the areas to be covered by instruction, as intended by the law-making body. State educators believe it will be sufficiently detailed to provide adequate guidance for programs to be set up in all school systems.

IN HILLSBOROUGH COUNTY, planning is already well under way for an appropriate program.

Under guidance of Dr. G. R. "Gus" Jiminez, social studies supervisor for the county public schools, a master plan was prepared and proposed more than a year ago for an integrated economics-consumer education program which would provide this training for the county public school children from kindergarten through senior high school.

The plan covers the years from 1974 through 1979 and is to be in large measure self-formulating as it proceeds, Jiminez says. It is in five phases, of which the second — equivalent to the second school year — is now under way.

THE LOCAL UNIVERSITIES and colleges are actively participating in the planning and preparation of the program, as are the Chamber of Commerce and local business and industry. Jiminez says.

Last year, for example, a highly successful one-week Free Enterprise-Consumer Education workshop was held on the campus of the University of Tampa during which detailed proposals were worked out for the balance of the plan.

This year a four-week Economic Education Workshop was held at the University of South Florida, as a third annual event of the Economic Education Center, jointly sponsored by the colleges of Business Administration and Education.

DR. HARTLEY MELLISH, a co-director of the workshop, which included as students middle and high school teachers from a number of area counties, said, "these teachers will be able to integrate economics into their existing curricula. They developed lesson plans which they will be using at their own schools in the coming years and they have developed skills in teaching economics."

Mellish said a "state-level" conference is to be held in Orlando in October this year which will bring together teachers and businessmen from around the state to consider the problems and methods of teaching economics in the schools.

Additionally, he said, there will be a conference of teachers in Hillsborough county in August, at which five of the teachers who attended this summer's workshop will present to the other teachers the concepts they learned. "This approach, he said, "will insure that the knowledge is passed along at the working level."

OF THE HILLSBOROUGH county effort to plan for adequate teaching of the free enterprise system in the schools, Jiminez says, "It may not look it at the moment, but I believe firmly that this county is far out in front of the rest of the state in getting ready for this program.

"A lot of what may happen in the future depends on things like the availability of funds, but at least we're well started."

In the meanwhile, Jiminez said, Hillsborough has had for years the course "Problems of American Democracy" which is required of all students before graduation. "It's not really enough to cover what we want," Jiminez said, "that requires education from the time the student starts school. But at least we are doing a little."

Re: Component #2

Evening Independent 3/13/76, Received from Peggy Upton

College Education: Is It An Asset?

MINAS JOANNIDES

Last Tuesday, as the saying goes, was full of good news and bad news. Good news for Gerry Ford and Jimmy Carter, but bad, perhaps tragic news for the proposed school bond referendum.

But what about high school graduation? After the diploma is in hand, must everyone go on to college? Certainly the pre-professional students, pre-med, pre-law, engineering and others in this category need the foundations upon which to build a solid future in their chosen field of endeavor.

But what about the majority of 18-year-olds who have not yet made a decision for their future? Is it consistent in this day of rapidly increasing higher education costs that these young adults languish in a realm of English literature, philosophy, and fun times which has produced the highest percentage of literate VD carriers of all time?

Understand, I'm not against higher education, but I think there is going to evolve *higher education with a purpose* — and that purpose is to train many of these people for a place to fit into our productive economy. Might not Renaissance History II be replaced by a specialized job oriented training course?

A few weeks ago the CBS "60 Minutes" program took a rather in-depth look at the subject and interviewed Caroline Bird. This lady's book "The Case Against College" has taken the spectrum of many pertinent anti-college truths, semi-truths, and myths. Ms. Bird does not believe that a bachelor's degree is as much help as it used to be in obtaining a job, nor does she believe that a graduate can earn more money or have a more satisfying or more "broadened" life than non-graduates.

In my opinion she could have stopped there, but she goes on to tell about college being an aging vat, perhaps a prison where these superfluous people can be sidetracked for a few years because they are of little use to our immediate economy.

In retrospect, I could have been satisfied with two years of college (including two summer sessions in liberal arts).

Many of the "snap courses" to fill in hours for my degree were a joke. I have learned more about art and history and customs with travel and personal study than from college courses. Through the years I forgot 95 per cent of the lecture about the Versailles palace, but when my Parisian guide Jean Louis told me, "Louis XIV built it, Louis XV enjoyed it, and Louis XVI lost his head over it" — that was indelible.

'When all else fails, we will have to outthink the enemy.'

Minas Joannides Jr., M.D. is medical director of The Emphysema Center in St. Petersburg. My View columnists, invited by editors to contribute on a regular basis, write their own views on subjects they choose.

Four years of college for a dedicated student who has a purposeful outcome for his or her newly acquired fund of knowledge is fine. This is the kind of person this country will have to rely on as its basic secret weapon — when all else fails we can outthink the enemy.

But for aimless liberal arts candidates who have no target site for a compendium of four years of related or unrelated courses, is this the purpose of higher education?

Many of these students feel mentally "refracted" from their liberal arts myopia with a master's or Ph.D. But how many Ph.Ds is the world crying for, say, in philosophy?

J. W. Forrester of MIT's School of Management believes that "system dynamics," a computer-based way of utilizing personal experience, measured data, observed structure and knowledge of the processes of control and decision making, could create courses and curricula that could meld various fields of learning into a common foundation.

His statement regarding the current collegiate status is strong, "Higher education today is not merely irrelevant, it is an unwitting conspirator in leading society down a dead-end street."

Somewhere in between lies the answer. We must give young adults more direction to gain a purposeful education. With ever-spiraling tuition and inflation, the day is over when "college bred" means a four-year loaf on the old man's dough.

Minas Joannides Jr. MD

Re: Component #3

The Tampa Tribune 3/17/76

Youngsters Counseling Each Other

By MARLENE DAVIS
Tribune Staff Writer

Ten-year-old Sherri Youngblood sat in a cozy circle with four first graders in Ruby Presley's classroom at Foster Elementary School.

As she leaned forward in her undersized chair to ask each child his name, her body language spoke of interest and acceptance as much as her verbalization.

Let's see, she said, do you know the rules for a discussion?

The 6-year-olds smiled shyly and innocently and said something like "washing my hands before eating" — or nothing at all.

SHERRI NODDED approval, but explained that those rules don't apply to discussions. Patiently, she suggested they raise their hands to talk and talk one at a time.

Anything you have to say is okay, she emphasized.

The topic for discussion was careers. Each child told Sherri what he wanted to be when he grew up and why. And Sherri listened with her eyes as well as her ears.

One chubby little boy got so excited talking about becoming a policeman, he jumped up and down in his chair.

Sherri reached over and softly touched his leg. "Calm down now," she said in a sweet voice. And he did.

In other small circles throughout the classroom, five other fifth graders, each with his own particular style, led similar discussions.

TALL LISA Paroline, precise and demonstrative, used her hands constantly to explain to her group, unversed in the term "put down," just what that meant and why it is a no-no in discussions.

Her four first graders were eager to talk about themselves "Thank you for sharing," she told each by name.

In another group, Buddy Batchelder, a short stocky boy with a lot of poise, discovered a child playing with a pencil instead of listening.

"Let me hold the pencil for you while we talk," Buddy said softly. And the child handed over the pencil with no problem.

Sherri, Lisa and Buddy, along with John Smiley, Dawn Nizol and Kenny Alvarez, are part of a unique elementary school counseling program designed to make kids feel good about themselves.

THEY ARE, in terms which were even hard for the participants to understand at first, peer facilitators.

That means, says Foster's counselor Gwen Drapela, that they make it easy for children to talk and listen by creating a climate in which everybody has a chance to listen and be listened to.

The idea is not original, nor is it really new, Mrs. Drapela said. Although it has been used in some high schools throughout the country, she added, it has not gained a lot of popularity in elementary schools.

Maybe, she said, this is because providing counselors for elementary schools is so new itself.

Until four years ago, she said, there was only one counselor for all the elementary schools in Hillsborough County. Since then, she said, there have been counselors in 37 of the 92 elementary schools.

Re: Component #4

Received from Howard Nix
April 23, 1975 as reported
in St. Petersburg Independent
4/16/75

Untaught

Young Job-Seekers Lack Basic Skills

SHEILA MULLANE
Staff Writer

Many of the 10,000 Pinellas County high school students, recent graduates and dropouts who sought help this year in planning their careers or in getting jobs are finding they do not have the skills required for most jobs available.

"The major block in placing these kids in jobs is they don't have the basic skills for the skilled trades," says R. Richard Di Noia, supervisor of student placement and follow-up services. "They can't type. They can't handle a wrench or even the most basic tools; so they have to take the unskilled jobs."

Di Noia believes the school system should require all students to master some kind of marketable skill before they are graduated even if they are planning to go on to college.

"Students should be required to learn typing, carpentry or auto mechanics," he says. "Even if they never use the skill to bring in money, they will be able to use it in the growing amount of leisure time we have today."

The school system's new placement and follow-up services department, mandated by the State Legislature, is hoping the information it gathers from students both in and out of school can be used to make the course offerings in the high schools more suitable to the needs of students in the "real world."

A recent survey of 978 high school seniors who were graduated in January shows a 50-50 split between students going to college and students going directly into the business world, marriage, the military or short-term vocational training. A similar survey will be done of spring graduates, Di Noia said.

Forty-seven per cent of the mid-year graduates said they are going into full-time employment. Many of these graduates have contacted Di Noia's office for assistance.

The majority of the placement work is done with students still in school, Di Noia said. During the past year 8,652 students sought either career information or direct help in finding a job. The placement counselors also assisted 651 recent graduates and 910 dropouts.

Only half of those students trying to find jobs were actually placed by the placement office. Many of the job openings were found by the office itself. Others were called in by businesses or taken from the "microfiche" of the Florida State Employment Service.

A total of 1,473 jobs were available during the year, Di Noia said. 2,453 students were sent out to interview for those jobs and 1,298 students were actually hired.

In recent months — primarily because of the economy — there have been fewer jobs available. Di Noia said the ratio of job seekers to jobs has risen as high as five or six to one.

"I'm really pleased with the results of the placements," Di Noia said. "With the state of the economy, it's surprising what the people out in the schools are able to do."

Re: Component #4

Submitted by: Bill Dover

THE MIAMI HERALD **Tuesday, August 19, 1975**

Demand for Craftsmen Growing in U.S. Business

This is another in the series excerpted from columnist Sylvia Porter's new Money Book, a best seller on personal finance published by Doubleday & Co. Inc.

Today's relentless trend is toward more and more education to qualify for most jobs, higher and higher degrees to aspire to the very top in many fields, lower and lower esteem for the less-than-college-educated individual.

Do these ever rising educational requirements reflect real job requirements — or merely "creeping credentialism"?

Some of both. Specifically:

The U.S. Bureau of Labor Statistics estimates that the demand for professionals is increasing at twice the rate of rise in demand for all other workers. But it also estimates that about 50,000 more college graduates will be entering the job market between 1972 and 1980 than there will be jobs for them; in the 1980-85 period, the "surplus" is due to expand to 700,000.

THIS MEANS that large numbers of college graduates may have to downgrade their expectations. In fact, an increasing number of college graduates even now are entering management and sales rather than the field for which they trained.

SYLVIA PORTER'S

MONEY BOOK

Moreover, as the demand for paraprofessionals has soared, particularly in the health, education, law and environmental fields, so has the number of two-year colleges and-or job-training opportunities — points not to be overlooked or underrated.

Meanwhile the oversupply of Ph.D.s is balanced by real shortages of skilled craftsmen and technical supportive personnel in many areas. As we have pushed back the limits of scientific and academic knowledge, we have tended to undervalue craftsmanship.

Dropouts who took up carpentry or pottery were among the first to rediscover that working with one's hands could be deeply satisfying. Now educators and economists realize the urgent need to give status to those who have manual talents.

DOES THIS MEAN guidance counselors will stop encouraging students to go to college? No. But it does mean counselors will increasingly endeavor to persuade overanxious parents of something many young people have long suspected: college isn't for everyone and this is nothing to be ashamed of.

It also means that the educational systems of the future must be designed to turn out fewer specialists and more generalists in both the "humanities" and the sciences so that young people will be able to shift among a number of different professions.

And it means that training programs, apprenticeships — in fact all forms of vocational training — will come in for more serious consideration than ever before.

Says a noted educator: "We are going to have to make the same resources available for the would-be hairdresser as we are doing for the Ivy League collegian."

WHAT THEN WILL be the new status of education? More than ever, education for its own sake will be a prime concern in the country. Colleges will make their educational facilities available to the community at large, enabling professionals (and paraprofessionals) to keep abreast of change and to enrich all those leisure hours which are coming, as the work week shifts from five to four and eventually three days.

Yes, the pay will remain somewhat higher for the college graduate who can find work, and it will still take a degree to get to the very top.

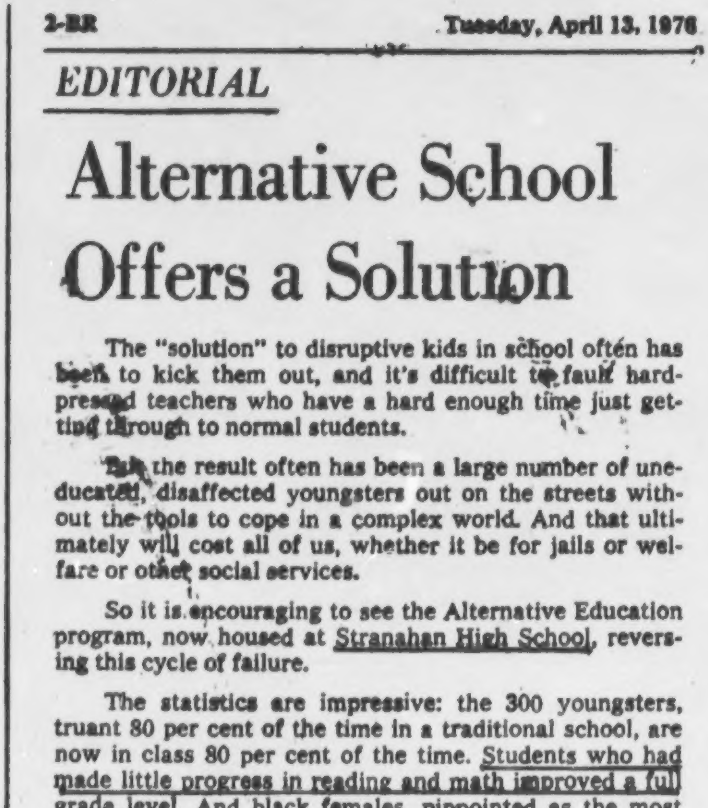
But a college degree is no longer a guarantee of employment, whereas certain crafts, paratechnical and paraprofessional areas are crying for help. Graduates of two-year colleges who cost less and do a perfectly adequate job are now preferred in many areas.

WHEN PLANNING for an education, always keep these two points in mind.

First, our society is changing faster than ever before, reacting to technological breakthroughs with unpredictable impacts on the job market. And second, where evidence is unmistakable that work exists to be done, such as in the rebuilding of our cities, the key factor in determining how many jobs will be available to the trained worker will depend on the future reordering of our national priorities.

Against this background, it is no more than common sense to try to start with as broad and sound an education as you can get; to choose your general field of work as late as you can to give yourself as much and as varied a training in that field as possible. Then you will enter the job market supported by the widest range of capabilities from which you can only benefit.

RE: Component #5 MIAMI HERALD



2-BR Tuesday, April 13, 1976

EDITORIAL

Alternative School Offers a Solution

The "solution" to disruptive kids in school often has been to kick them out, and it's difficult to fault hard-pressed teachers who have a hard enough time just getting through to normal students.

But the result often has been a large number of uneducated, disaffected youngsters out on the streets without the tools to cope in a complex world. And that ultimately will cost all of us, whether it be for jails or welfare or other social services.

So it is encouraging to see the Alternative Education program, now housed at Stranahan High School, reversing this cycle of failure.

— A Career Education School

The statistics are impressive: the 300 youngsters, truant 80 per cent of the time in a traditional school, are now in class 80 per cent of the time. Students who had made little progress in reading and math improved a full grade level. And black females, pinpointed as the most hostile and unresponsive students, improved the most, according to a study of the first year of operation for the Alternative School.

How did the program do it? Students were allowed to read comic books, meditate, swear, call teachers by their first names and even come to class late.

Outrageous? Some Stranahan teachers (not in the program) thought so and petitioned for the controversial program to be moved away from the school.

But its supporters, and the number is growing, believe the program works. "This is the first time in ten years that some of these kids have not failed," says Alternative School director Sharon Solomon. "They've been told they were rotten, lousy by their report cards, their parents and other kids."

Any program that can reverse these youngsters' negative feelings about themselves deserves support. And it's a far better 'solution' than turning the kids out on the streets without any skills, and get these youngsters to make progress in the classroom rather than languish in the streets is one that deserves our support.

__Re: Component #6__

Received from C. Thomas
Reported in Today 4/21/75

FAA Seniors Test Area Jobs, Professions

BY JOHN BARTOSEK
TODAY Staff Writer

Helping perform autopsies in the pathology laboratory at Brevard Hospital to working in the mayor's office in Melbourne City Hall are part of a unique work-experience program for senior class cadets at Florida Air Academy in Melbourne.

Both the jobs, along with about 40 others, are part of "Project D," a three-week internship in various businesses and professions in South Brevard.

The entire senior class recently completed the program, named for former schoolmaster Col. Jonathon Dwight, who initiated it. And at least five cadets unanimously agreed that the work-experience should be offered from Christmas until the end of the school year, not just three weeks.

"It was great. The first week you get familiar with the equipment, learn your way around. Then you spend a week with somebody helping you. And the last week, you're actually carrying your share of the load," said 1st Lt. Phil Mesa, who worked in the computer room at __Harris Corp.__ Semiconductor Division in Palm Bay.

Cadet Corps Commander Tim Kling was one of two youths assigned to the morgue at Brevard Hospital. Both are interested in law enforcement work.

"Well, we got used to death," Kling said. "We learned how to investigate all kinds of deaths: homicides, accidents, suicides. We talked with sheriff's department agents and municipal policemen, and even attended two meetings at the police academy on how to fill out all the death report forms."

Richard Mower spent his three weeks at city hall, spreading his hours among financing, data processing, utilities, fire department and the offices of the city manager and mayor.

Mower, interested in a political science career, opened the mayor's mail and helped rank items in importance for the agenda.

He rolled his eyes upward when asked if the city council had any "hot" meetings during his internship.

"Good grief. You know, there are a lot of things that go on you never really find out about. And I discovered that you have to do some compromising on things you'd like to have. That's the political system," 2nd Lt. Mower said.

Other boys like 1st Lt. Carter Zinn were working at Babcock Nursery in Melbourne, while Patrick AFB took 25 youths. Those at the base were involved in finance, control tower, hospital records and security work.

"It's a learning experience more than anything else," said Mrs. Adeline B. Whitaker, director of student activities at __Florida Air Academy__. "They're not paid anything for their work and they're on the job a full eight hours, sometimes even longer

ARTER ZINN RECEIVES SOME TIPS ON RAISING PLANTS CO
. . . Mrs. Rosetta Milton, Babcock Nursery, is instruc

COMMANDER TOM KLING, LEFT, VICE COMMANDER KE
. . . at work in pathology lab at Brevard Hospital. Melbour

Re: Component #7

What Counts Most When You Look for a Job?

Maturity, Initiative Outrank College Grades

By JACK HOUSTON
Chicago Tribune Service

If you think your college grades are the most important factor in landing a job, you're wrong. Grades rank second on a scale of six.

And if you believe the specialized courses you take in school are considered first by prospective employers, you flunk. They are only half as important as the No. 1 factor.

Most important, according to a Northwestern University placement study, are your personal qualifications — such as maturity, initiative, enthusiasm, poise, appearance, and the ability to work with people.

THE 30TH ANNUAL ENDICOTT study by Northwestern asked 225 well-known business and industrial employers what they considered most important in selecting college graduates. A total of 215 of these employers ranked in order of importance the six factors most generally considered by recruiters.

The third most important factor for most graduates is the specialized courses they take relating to particular fields of work.

"This is true in engineering, other technical fields, accounting, and business administration," the study report noted. "For liberal arts graduates, however, this factor ranks fifth."

Fourth in all fields is the type and the amount of part-time and summer jobs students held while in college, the study found.

FIFTH, EXCEPT FOR LIBERAL arts graduates, is their experience in campus activities, "especially leadership and participation in extra-curricular life," the report said. For liberal arts graduates, this factor ranked third.

The least important of the six factors are "general or liberal arts courses designed to provide a broad and cultural background."

Actually, all these factors, though not equally important, should be taken into account.

"It is interesting to note that, except for specialized courses, the factors which count most are not related to the size or type of the college or university," said Frank S. Endicott, Northwestern's retired director of placement, who conducted the study.

HE ALSO NOTED THESE FACTORS "are not related to the kind of degree the students earn or to the sex or racial origin of the (job) applicant."

Endicott said he included the question about these hiring factors "becase of the problems which confront college graduates in finding employment."

Most of the companies surveyed by Endicott had cut back their hiring of college graduates severely last spring, but now they report an upward hiring trend again.

Re: Component #8

As reported in the
Miami Herald 5/10/75

EDITORIALS

It's Time to Close the Books On 'Educational Malpractice'

THAT accountability in education may be headed his way has attracted the attention of Albert Shanker, head of New York's teachers' union, to the extent that he is raising defenses against the concept of "educational malpractice."

The concept is based on a lawsuit filed in 1972 against the San Francisco School Board in behalf of Peter Doe, seeking damages. The basics of the case are summed in an article in the November, 1974, Harvard Educational Review which Shanker quotes, as do we:

"The plaintiff is an 18-year-old Caucasian male high school graduate. His IQ as determined by the San Francisco School District is normal. During the course of his 13 years in the San Francisco public schools he maintained average grades, never encountered any serious disciplinary problems, and maintained regular attendance. He advanced year by year through the public school system until he was awarded a high school diploma. At various points throughout his school career his parents expressed concern over his apparent difficulty in reading. They were repeatedly assured that he was reading at the average level and had no special or unusual problems.

"Shortly after high school graduation, the young man was examined by two private reading specialists. Both indicated that he was reading at approximately the fifth grade level . . ."

Since then, taking "post-graduate" lessons, he has made "significant progress" in improving his reading level. Also since has come a $500,000 suit for loss of earning capacity, mental distress and suffering, plus another $500,000 in punitive damages, plus court and tutoring costs.

While the California Superior Court dismissed the case, Mr. Shanker concedes it may have a better chance on appeal. We can see why. If a doctor can be sued because his mistakes or nonperformance result in a crippled child, a school system that cripples a child educationally would seem as liable as a matter of simple equity.

Mr. Shanker, however, fears the prospect. It would interfere with the process of education. It could lock in slow readers in one grade interminably. Schools might have to drop a broad range of subjects and activities to concentrate on minimal standards in basic skills. From there he wanders off into the high price school systems might have to pay for lawyers and insurance, pointing out that the victim of a school, as is the case with medical victims, would not get too much of the award anyway.

He does not worry that Peter Doe was reading "at the average level," and thus his classmates might be in the same sinking boat. He thinks Peter should have been taught to read and that something is wrong somewhere. He does not add up the high cost of 13 years of "education" that was not delivered.

But to expect a school system to do its job—its expensive job—and be held responsible for the kind of job it does for the Peter Does and the John Does and the Jane Does would "bring educational deterioration rather than improvement," in Mr. Shanker's opinion.

Perhaps, but how does he know and how much room for deterioration is left?

Hard to say. The teaching processes "are not yet understood adequately. There is as yet no model of competent educational practice comparable to that which exists in medicine or law," in Mr. Shanker's words.

Now that he can read, Peter Doe might agree with that.

Re: Component #10

Received from
EPIC member
C. Thomas

Today, 4/21/75

ORIDA A'R & [illegible]

School: Total Area Program

BY DAVE HEATH

TODAY Education Writer

Community education is "a process of people learning to fish rather than having some federal, state or local official coming in and giving people fish," an expert in community education said Saturday.

But V. M. Kerensky of Florida Atlantic University told a seminar at Cocoa High School, school officials have tended to look upon their buildings as places only for children and the children have been limited to daytime use of those buildings.

Community education should work to get "all the resources mobilized to address itself to problems of the community," he said.

"We've opened doors to let people in, but haven't opened the doors to let the inmates (children) out," Kerensky said, contending that "age segregation" in-

Full School Use Urged

From Page 1B

creases the likelihood of clashes between persons of different age groups.

"The new schools of tomorrow have to be integrated into the lifeblood of the community," he said, because the "separate turf" philosophy is unsound economically and ecologically.

Secretary of State Bruce Smathers amplified Kerensky's comments, saying the bureaucratic tendency to protect and expand itself is unsound in times of economic recession.

Beyond that, Smathers said, since a majority of Florida's population in 1900 will be more than 65 years old, school systems and local agencies must cooperate to meet all citizens' needs.

"Any school district that chooses to ignore that fact (increasing numbers of senior citizens) is going to ignor it at its great peril," Sen. D. Robert Graham, D-Miami Lakes, told the seminar, hosfed by Rep Bill Nelson, D-Melbourne.

Graham, chairman of the Senate Education Committee, said 80 percent of the school buildings that will be used in 2000 have already been built, adding that communities must use their facilities "for a broader range of purpose."

He said the classroom is the "last resort" for vocational education. Students should be out where the work is being done rather than in the artificial classroom environment, Graham said

School cafeterias are the "most underutilized food facilities in any commnuity," he said, and should be opened for service to senior citizens and other groups

Commissioner of Education Ralph Turlington stressed the need for cooperation by various community agencies, and said lack of cooperation is "the greatest barrier" to development of schools that serve all levels of local citizenry

representation.

"We put out an edition of Insight reminding people of the provisions of the law and to be careful to read the law for guidance, not to take people's word for it," Rogers responded.

Rogers also charged the BFT with "delaying tactics" in not completing negotiations last week for a consent election, adding that "we kept going to meetings expecting to have an agreement finalized only to find new things (unfair labor practice charges) brought up to us.

At Wednesday's meeting, representatives of the Classroom Teachers' Association (CTA) suggested that election groundrules, and clarification of the access rights BFT claims it hasn't been getting, should be decided by binding arbitration through the Ameri-

INSTRUMENT DEVELOPMENT AND VALIDATION PROCEDURES

The instrument content and scoring keys of 18 student product instruments were developed and approved by members of the Statewide Evaluation Committee during a continual exchange of information via mailouts, telephone conversations and live interchanges at EPIC Board meetings, workshops and conferences. Six additional instruments for collecting process data from administrators, parents and staff specialists were developed in coordination with the career education project coordinators of the Orange, Broward and Pinellas school districts. The instrument for collecting process data from community education directors was developed in coordination with the chairman of the Florida State Advisory Council for Community Education.

As employers and representatives of labor and professional groups, the members of the Statewide Evaluation Committee organized and validated the student product instruments so that students would be exposed to the world of industries in Florida, the various areas of economics, and other dimensions which employers considered critical when evaluating potential employees. The committee was also organized according to 13 different types of Florida industrial categories (similar to the 15 U.S.O.E. clusters). The process used to develop the student product instruments was as follows:

1) EPIC members suggested 25 criteria (or evaluation questions) as an extension of the 10 components.

2) A national search for career, economic and community education instruments produced over 200 instruments which were broken down and categorized according to the 25 criteria.

3) The sorted items suggested 25 dimensions of student behavior; many of these sorted items left "gaps" which were filled with the design of new EPIC dimensions. (Each dimension was developed by sorting and comparing sometimes thousands of test items, so that it would represent a "unique" and "discrete" dimension of student behavior.)

4. These 25 dimensions were packaged into 18 instruments for measuring student performance.

As a reference that (it was presumed) most Florida career educators would be familiar with, the "8 Elements of Career Education" from the U.S.O.E. - Ohio State "Comprehensive Career Education Model" (CCEM), were compared against the 25 dimensions of student behavior which EPIC members considered desirable. Since the development of CCEM in 1971, the EPIC Project Manager has made a continual effort to further define the "8 Elements of Career Education" in the terms of a more operational evaluation language. The EPIC Statewide Evaluation Committee, in November 1974, joined in this effort because EPIC members are as interested as educators in the specific student behaviors which go into the make up of "a good employee" and a "good citizen". The 25 EPIC dimensions, therefore, represent an attempt by executives of Florida business, labor and professionals to further define the "8 Elements" (a curriculum language) into a more "operational" evaluation language, for use by Florida lay members and educators to determine the progress of local career-economic programs.

Dependent Variables

Dependent variables are measures of student performances (or changes in student behavior patterns) as a result of some ongoing treatment or program. The Dependent Variables are listed as EPIC Dimensions of Student Performance and are compared with the language of the 8 Elements of Career Education from the U.S.O.E. - Ohio State (CCEM) model, as follows:

EPIC Dimensions of Student Performance	8 Elements of Career Education (CCEM)
Component #1 - Knowledge of the Economic System	Economic Awareness
Dimension #1 - Profit	
Dimension #2 - Productivity and the Market	
Dimension #3 - Labor Market Demand	
Dimension #4 - Consumer Economics	
Dimension #5 - Business Cycles and Monetary Policy	
Dimension #6 - The Roles of Government	
Dimension #7 - International Trade and Monetary Policy	
Dimension #8 - Comparative Economics	
Component #2 - Knowledge of Occupations	Career Awareness
Dimension #9 - Worker Titles (Recall)	
Dimension #10 - Workers in Different Industries	
Dimension #11 - Education/Training/Licensing/Union Requirements of Jobs	
Dimension #12 - What Workers Do on the Job	

EPIC Dimensions of Student Performance	8 Elements of Career Education (CCEM)
Component #3 - Guidance for Realistic Career Decisions	Educational Awareness Self-Awareness Decision Making
Dimension #13 - Knowledge About Career Planning	
Dimension #14 - Career Planning Activities Checklist	
Dimension #15 - Talking About Careers	
Dimension #16 - Career Decision-Making	
Dimension #17 - Worker Titles (Identification)	
Dimension #18 - Career Interest	
Component #4 - Employment-Entry Skills	Employability Skills Beginning Competence
Dimension #19 - Job Expectations	
Dimension #20 - Employee Work Habits	
Dimension #21 - Employee Traits and Mannerisms	
Dimension #22 - Interviewing for a Job	
Dimension #23 - Inventory of Work Skills	
Component #5 - Alternatives for Potential Early School Leavers	Attitudes and Appreciations
Dimension #24 - Attitudes Toward School	
Dimension #25 - Attitudes Toward Careers	

The foregoing dependent variables were developed through the sorting of thousands of test items, and the critique of those items by EPIC members, school staff specialists, administrators, business representatives and parents of the Broward, Orange and Pinellas school districts. Each dimension may now be considered a somewhat "discrete" measure of student behavior when compared to the other dimensions. Part of the problem with commerical and school-made career education instruments (found in the EPIC national search was that little attempt had been made to separate the dimensions of student career education behavior into "discrete" measurable dimensions. Most instruments now in circulation have subtests which are combinations of these dimensions and cannot as such be validated as measures of specific student performances. Only a few of these instruments contain "discrete" dimensions.

The 18 EPIC student product instruments which contain these "discrete" dimensions, have undergone the following validations:

1) Content and scoring keys were developed, validated, and approved by members of the Statewide Evaluation Committee as representative of the "employers point of view".

2) Content, scoring keys and format were validated by staff specialists, administrators, business representatives and parents of the Broward, Orange and Pinellas school districts.

3) Most career education items which could not discriminate between experimental and control groups of career education students were eliminated.

4) Items which almost all students in a particular grade level could perform successfully were eliminated or moved to a lower grade level. Items which almost none of the students in a particular grade level could perform successfully were eliminated or moved to a higher grade level.

5) Instruments were "packaged" with items by grade level range, using items with similar reading levels, by using teachers as validators and by using a readability formula.

6) A maximum time for administering each instrument was assigned. When all students, in different schools, in a particular grade level range (such as 2-3-4, 7-8, 10-11), completed the instruments comfortably in a similar time period (such as 50 minutes for elementary, 90 minutes for middle or junior high, and 120 minutes for senior high), the instruments and data collection procedures were considered valid.

(Data from over 2,800 student was used to validate the EPIC instrument battery in this manner.)

Independent Variables

In addition to the foregoing dimensions which measure student products, the EPIC instrument battery contains a number of independent variables which relate to the desirable student products, as follows:

Component #5 - Alternatives for Potential Early School Leavers

a) Identification of Potential Early School Leavers
b) Referral of Potential Early School Leavers

Component #6 - Student-Worker Contacts

a) Field Trips
b) Workers Visiting Students
c) Career Days/Fairs
d) Shadowing Experiences
e) Employer-Based Cooperative Programs

Component #7 - Placement and Follow-Up

a) Jobs Available
b) Student Placements
c) Student Follow-Ups

Component #8 - Staff Development

a) Economics Activities in Related Disciplines
b) Worker Titles
c) Work Skills
d) Staff Roles
e) Staff Attitudes
f) Workshop Participation

Components #9 and #10 - Community Involvement and Community-School Facility Utilization

a) Parent Attitudes
b) Program, Service, Facility, Organization Demand
c) Course Registration Demand

When the EPIC Evaluation System is implemented, student scores on the EPIC student product instruments may be correlated with scores on other tests such as tests of generalized interest or ability, as follows:

American College Test - ACT
Armed Services Vocational Aptitude Battery - ASVAB
College Level Examination Program - CLEP
English Test 9, 10, 11, 12 Grades
Florida Twelfth Grade Testing Program - FTGTP
National Math Exam
Ohio Vocational Interest Survey - OVIS
Otis Lennon Test
Preliminary Scholastic Aptitude Test - PSAT
Scholastic Aptitude - SAT
State Assessment Program 9th Grade
Test of Academic Skills - TASK

THE EPIC INSTRUMENT BATTERY

Student Performances in Career and Economic Education:	Maximum Minutes	Grade Level Range		
		2-4	7-8	10-12
1a - Knowledge of the Economic System	5	x		
1b - Knowledge of the Economic System	10		x	
1c/1d - Knowledge of the Economic System	10			x
2a - Worker Titles	10	x	x	x
2b - Workers in Different Industries	20	x		
2c - Workers in Different Industries	10		x	
2d - Preparation for Employment	10		x	
2e/2f - Job Requirements and Functions	30			x
3a - Career Planning	15		x	x
3b - Considering Careers	15		x	x
4a - Acquiring and Maintaining a Job	15			x
4b - Inventory of Work Skills	15			x
5a - Attitudes Toward School and Careers	5	x		
5b - Attitudes Toward School and Careers	10		x	x
Critique 7-8/10-12	--			
Total testing minutes per grade level range		40	80	120

Instruments Which Collect Process Data:

School Coordinator's Questionnaire

Placement/Follow-Up Director's Questionnaire

Career Education Director's Questionnaire

Teacher's Questionnaire

Community Needs Survey

Community Education Director's Questionnaire

Instrument Design Summary

The 10 EPIC components originally suggested 25 criteria (or evaluation questions) which were used to sort and categorize test items. This sorting procedure resulted in 25 dimensions (or dependent variables) of student performance which are embodied in 18 student product instruments related to EPIC components 1 through 5. In addition, several independent variables are contained in 6 process instruments related to EPIC components 5 through 10, as follows:

Components 1 Through 5 - Dependent (Student Performance) Variables

COMPONENTS AND CRITERIA	DIMENSIONS	INSTRUMENTS
#1 - Knowledge of the Economic System/		
1) Exhibit a Knowledge of the Economic System.	1) Profit	1a) Grades 2-4
	2) Productivity and the Market	
	3) Labor-Market Demand	1b) Grades 7, 8
	4) Consumer Economics	
	5) Business Cycles and Monetary Policy	
	6) The Roles of Government	
	7) Internal Trade and Monetary Policy	
	8) Comparative Economics	1c/1d) Grades 10-12
#2 - Knowledge of Occupations/		
2) Recall a variety of occupations from memory.	9) Worker Titles (Recall)	2a) Grades 2-12
	10) Workers in Different Industries	2b/2c) Grades 2-4, 7-8
3) Identify the education, training and testing requirements of occupations and the language used on the job	11) Education/Training/Licensing/Union Requirements of Jobs	2d) Grades 7-8 2e/2f) Grades 10-12
	12) What Workers Do on the Job	2e/2f) Grades 10-12

COMPONENTS AND CRITERIA	DIMENSIONS	INSTRUMENTS
#3 - Guidance for Realistic Career Decisions/		
4) Consider an organized scheme of activities when planning for a career and a job.	13) Knowledge About Career Planning	3a) Grades 7-12
	14) Career Planning Activities Checklist	
	15) Talking About Careers	
	16) Career Decision-Making	
5) Consider a variety of occupations for exploration, based on personal interests and abilities.	17) Worker Titles (Identification)	3b) Grades 7-12
	18) Career Interest	
#4 - Employment-Entry Skills/		
6) Place values on different worker expectations and life styles.	19) Job Expectations	4a) Grades 10-12
7/8) Recognize productive work habits and good interpersonal relations for gaining, maintaining, and upgrading various employment situations.	20) Employee Work Habits	
	21) Employee Traits and Mannerisms	
9) Know proper conduct for the job interview.	22) Interviewing for a Job	
10) Develop basic academic skills which are required by many jobs.	23) Inventory of Work Skills	4b) Grades 10-12
11) Develop skills which prepare workers for the eventuality of changing careers.		
#5 - Alternatives for Potential Early School Leavers/		
12) Reduce the number of disciplinary problems and dropouts by helping students to understand some general ways of making a living with an enjoyable job.	24) Attitudes Toward School	5a) Grades 2-4
	25) Attitudes Toward Careers	5b) Grades 7-12

Components 5 Through 10 - Independent (Process) Variables

COMPONENTS AND CRITERIA	PROCESS VARIABLES	INSTRUMENTS
#5 - Alternatives for Potential Early School Leavers/		
13) Involve parents in counseling sessions with students.	Identification and Referral of Potential Early School Leavers	School Coordinator's Questionnaire Teacher's Questionnaire
#6 - Student-Worker Contacts/		
14) Continually bring students into contact with all levels of working adults.	Field Trips Workers Visiting Students Career Days/Fairs Shadowing Experiences Employer-Based Cooperative Programs	School Coordinator's Questionnaire
#7 - Placement and Follow-Up/		
15) Encourage students to know what jobs are available through continual contacts with the school placement office. 16) Place more students on jobs. 17) Collect follow-up data to determine the extent of student and employer satisfaction, resulting from placements. 18) Use follow-up data to improve school courses.	Jobs Available Student Placements Student Follow-Ups	Placement/Follow-Up Director's Questionnaire
#8 - Staff Development/		
19) Adopt new staff roles to facilitate the development of career-economic education programs.	Economic Activities in Related Disciplines Worker Titles Work Skills Staff Roles Staff Attitudes Workshop Participation	Teacher's Questionnaire Career Education Director's Questionnaire

COMPONENTS AND CRITERIA	PROCESS VARIABLES	INSTRUMENTS
#8 - Staff Development/		
20) Issue grades based primarily on a students's completion of assigned tasks with a minimum of supervision, (rather than traditional testing).		Teacher's Questionnaire
21) Issue certificates for the mastery of skills (developed through a series of assigned tasks), which students can show to potential employers.		
22) Encourage school staff members at the secondary level to work in industry one month each year.		
#9 - Community Involvement/		
23) Encourage community members to communicate their attitudes toward public education.	Parent Attitudes	Community Needs Survey
#10 - Community-School Facility Utilization/		
24) Assess community needs for programs, services, facilities, and organizations.	Program, Service, Facility, Organization Demand	Community Needs Survey
25) Encourage community members to become better prepared for the productive use of leisure time, and more aware that education is a life-long process.	Course Registration Demand	

HOW EACH INSTRUMENT WAS DEVELOPED

The procedures which were used to develop each EPIC instrument are summarized on the following pages.

Members of the Statewide Evaluation Committee who are listed below contributed to the development of the EPIC instruments as follows:

Statewide Evaluation Committee Member	EPIC Instrument Number 1a-1d	2a-2f	Industry Specialty	3a	3b	4a	4b	Process Instruments
Allen		x	Labor		x			
Bower		x	Health		x			
Boy		x	Manufact.		x	x	x	
Bronson	x	x	C,M,N,T	x	x	x	x	x
Buchanan		x	Insurance		x	x	x	
Clemens		x	Finance		x			
Dockery		x	Const.	x	x	x	x	
Dover	x	x	All Inds.	x	x	x	x	x
Drake		x	Business		x	x	x	
Ellyson	x	x	All Inds.		x	x	x	
Fleming	x	x	Manufact.		x	x	x	
Foose		x	Health		x	x	x	
Forsetlund		x	Insurance		x		x	
Gaines		x	Const.		x			
Gore		x	Health		x			
Griffith (Rodgers)		x	Manufact.		x	x	x	
Hand		x	Const.		x		x	
Harsin		x	All Inds.		x			x
Hartley		x	Science		x	x	x	
Hayes		x	All Inds.		x			
Hollis		x	Retail		x	x	x	x
Kline		x	Const.		x	x	x	
Knepper		x	Environ.		x		x	
Lake	x	x	Commun.	x	x	x	x	x
Leppert			Govern.				x	x
Miller		x	Engineer.		x		x	
Milstead		x	Banking				x	
Monahan (Haines)		x	Health		x		x	
Mundell		x	Retail	x	x	x	x	
Murr	x	x	Retail	x	x	x	x	
Nix	x	x	Banking		x	x	x	x
Passilla		x	Entertain.		x	x		
Patton		x	Business		x			
Pettijohn		x	Commun.		x	x	x	
Potter		x	Retail		x	x	x	
Reynolds		x	Retail		x	x	x	
Rowe		x	Environ.		x		x	
Schultz (Koch)	x		Finance					
Stancliffe	x	x	Retail	x	x	x	x	x
C. Thomas	x	x	All Inds.		x	x	x	x
R. Thomas	x	x	Farming		x	x	x	

Instrument Development Summary

(Please refer to Instruments 1c/1d - Knowledge of the Economic System.)

1) 96 test items were developed, based on the Joint Council on Economic Education test, "Manpower and Economic Education," July 1972, and some inputs from EPIC members: Bronson, Dover, Fleming, Lake, Nix, Stancliffe, C. Thomas, and R. Thomas. Fred Schultz, member of the EPIC Board as well as the Board of the Florida Council on Economic Education, critiqued the test items and eliminated several ambiguous items.

2) Student scores from the Broward, Orange and Pinellas school districts (9th through 12th grade) were subjected to computerized item analysis. After deleting items, 60 items were categorized into 8 areas of general economic knowledge. Additional items were added to the 8 categories until there were 20 x 8 items (totalling 160 items).

3) 210 students from the three districts (grades 9th through 12th) produced pre-test scores which were between 4.6 and 7.2 percentage points better than chance. 79 out of the 160 items were used for scoring, based on a computerized reliability analysis.

4) Mr. Don Koch, an associate of Fred Schultz, submitted a critique of the items and suggested a reduction in the number of items and an elimination of certain items with an implied value judgment. At the EPIC workshop for Orange County staff, Mr. Koch's recommendations were achieved. The first 10 items were designated as "Preferred", i.e., 4 staff members working as a team on each category agreed with the EPIC scoring key. The next group of 2 to 5 out of 10 items in each category were agreed upon, but not preferred. (These were "Alternate" items for the second workshop in Broward County.) The remaining items in each category were labeled "Ambiguous", as the staff could not agree among themselves and with the EPIC scoring key.

5) EPIC members Ellyson (CPA, Coopers and Lybrand) and Murr (Florida Retail Federation) deleted some ambiguous items while approving the remaining items. At the EPIC workshop for Broward County Staff, consensus was reached on 10 items per category. Each item was designated as appropriate for a student at either the 9th, 10th, or 11th grade. There were 22 items appropriate for 9th graders, 45 items appropriate for 10th graders, and 80 items appropriate for 11th graders.

6) Following the January 16, 1976 EPIC conference, two "matching" instruments were developed with 40 items each. Items were divided based on, a) an equal number of 9th and 10th grade items; and b) an equal number of True and False responses. Instruments were critiqued by EPIC members Ellyson and Koch. Items were further assessed with a grade level readability formula.

7) 16 participants of the Pinellas workshop stressed that Economics should be included (as Career Education is now) in all subject areas; for example, Social Studies, Home Economics, Math, Business, Georgraphy. They found problems with items 1, 10, 17, 19, and 39 of form 1c, and with items 2, 3, 7, 9, 10, 12, 14, 15, 17, 21, 26, 33 and 39 of form 1d. Form 1c will be used for the post tests with 5 agreed-upon items substituted from form 1d. Form 1d with the revised items will be critiqued one more time by EPIC members. Both forms have been simplified for lower level readability.

Instrument Development Summary

(Please refer to Instruments 1a/1b - Knowledge of the Economic System.)

1) 160 items were reduced to 80 items for grades 9 through 12 in instruments 1c and 1d through EPIC and school member validations.

   Based on these 80 validated items by EPIC and school-based participants, lower grade items were developed and organized for grades 7 and 8, 4 and 5, 2 and 3. 10 items were created for 2nd and 3rd graders in the 1a instrument; 16 for 4th and 5th graders in the 1b instrument; and 32 for 7th and 8th graders in the 1c instrument.

2) With the 1a instrument, 16 Pinellas workshop participants saw problems with items 1, 3, 5, 7, 9, 10. 27 2nd graders from a Broward County school gave responses which indicated problems with items 1, 2, 3, 5, 7, 8, and 9. Items were judged for readability between grades 2 and 5. Items 1, 2, 3, 5, 7, 8, 9 and 10 were reworded, using shorter words with less syllables per sentence wherever possible.

3) The 1x items were considered at a readability level from the 3rd to 5th grade. 16 Pinellas workshop participants found problems with items 2, 3, 4, 6, 11, 12, 13, 15 and 16. 28 fifth grade students from a Broward County school provided responses which suggested problems with items 2, 4 and 11 and which suggested ceiling levels with items 1, 2, 4, 9, 13, 14, 15 and 16. As a result, items 1, 4, 13, 14, 15 and 16 were eliminated, and items 2, 3, 6, 9, 11 and 12 were re-written, while items 5, 7, 8 and 10 remain the same.

4) The 32 1b items were categorized, 4 per each of the 8 EPIC areas of economics. Due to the high number of syllables per word (technical vocabulary), the readability was considered between the 8th and 10th grade level with the provision that the technical vocabulary could be treated like proper nouns and not counted in the readability level. 16 participants of the Pinellas workshop found problems with items 1, 7, 9, 15, 17, 19, 20, 21, 22, 29, 30, 31, and 32. As a result, items 9, 20, 21, 27, 29, 30, and 32 were eliminated. Items 1, 5, 7, 8, 11, 15, 17, 19, 23, 25, and 31 were reworded. Items 2, 3, 6, 10, 12, 13, 14, 16, 18, 22, 24, 26, and 28 were agreed to by all 16 Pinellas participants and remain the same.

5) After collecting data in March 1976 from two Orange County elementary schools and one Broward County elementary school using instruments 1a and 1x, both instruments were revised. Four items were retained in form 1a and two items were added from form 1x; four new items were added while spacing the similar content of items more carefully. The items were triple spaced for second graders. Nine items were retained in the 1x form, while making minor revisions to three items. Form 1a was made for students in grades 2, 3 and 4, due to the difficulty of using 2 different forms at the same time with elementary students. Form 1b is retained for pilot testing with 5th and 6th grade students.

#2 - 130 EPIC Occupations

This is not an instrument at this time, but an intermediate objective related to instruments 2d, 2e, 2f, 3b, 4b. A list of over 1800 occupations was originally assembled from the U.S.O.E. Cluster Analysis, Florida VIEW occupations, the Florida Jaycees CAP Project, New Career Education units, a Florida occupations instrument, contributions from EPIC Specialists, and a labor-market demand report from the Greater Miami Chamber of Commerce. EPIC Members were asked to examine a list of worker titles in each of 13 occupational categories representing Florida's labor market: First, to select the 10 most representative titles (many people work in these occupations) for each category and, second, to substitute occupations with high Florida labor-market demand. This type of revision has been performed repeatedly. The Sexless Dictionary of Occupational Titles has been used to insure neutrality in the gender of the occupational titles. The present list of 130 occupations is now considered by EPIC Members as adequate for the Occupational Awareness purposes of the project (Orange and Broward County Staff Members concurring). (Both the "least known"* and "most known"** worker titles are marked with asterisks for teacher reference.)

The final list of 130 occupations could be published in Chart Form and distributed to teachers, counselors and occupational specialists throughout Florida schools, with a suggested procedure for use of the 130-occupation chart.

At the beginning of each school year, each teacher could begin to check the occupations explored or studied by his/her students: through class discussions, field trips, shadowing experiences, career days, visiting speakers, student research projects, etc. At the end of each term, teachers could submit a 1-page form to the principal, showing the extent of Career Awareness/Exploration activity related to the 130 occupations.

At the November 25th EPIC Workshop for Orange County staff, the staff suggested that certain groups of occupations be assigned to specific curriculum teachers, e.g. math, science, language arts, social studies, etc. In order to eliminate some of the concerns which teachers are having about Career Exploration "overlap". Should this be arranged, the assigned groups of occupations could be color-coded. For example:

Occupational Categories	Teacher	Color Codes
Health	Physical Education	Blue
Construction	Math	Purple
Science/Farming	Science	Red
Business/Finance	Business	Orange
Government/Transportation	Social Studies	Yellow
Mass Communications	Language Arts	Green
Personal, Hotel, Restaurant	Home Economics	Grey
Entertainment/Arts	Drama/Art	Black
Manufacturing	Shop	White
Retail	Distributive Education	Brown

At the January 13th Broward workshop several occupations were revised. At the February 18th Pinellas workshop, the 130 List was considered a good tool for teachers to use to investigate and substitute new occupations in demand as a result of future labor market trends.

130 Occupations Most Representative of Florida's Labor Market

(E) For "Engineer" please see the Science/Technology category.

* Least known by students

** Most known by students

CONSTRUCTION (E)
Air Cond. Mechanic
Architect
Bricklayer
**Carpenter/Cabinet Maker
Electrician
Equipment Operator
Painter
Plumber
Roofer
Sheet Metal Worker

MANUFACTURING (E)
Drafter
Electronics Technician
*Expediter
Garment Cutter
Industrial Maint. Mechanic
Machinist
*Quality Control Tech.
Tool and Die Maker
Upholsterer/Furn. Finisher
Welder

RETAILING/WHOLESALING
Appliance Repair Specialist
Buyer/Fash. Coord./Model
**Cashier/Sales Clerk
Display Specialist
Sales Person, Commission
Security Person
Ship/Receive/Inv. Clerk
Supermarket Stock Worker
Vending Mach. Route Person
Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING
**Bookkeeper/Bus. Mach. Oper.
*Certified Public Accountant
Clerk Typist
Computer Programmer/Analyst
Keypunch Operator
Office Machine Serv. Person
Payables/Payroll Clerk
*Receivables/Credit Clerk
**Secretary/Stenographer
**Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.
**Bank President/V. Pres.
Insurance Adjuster
Insurance Agent/Sales
Loan Officer
Market Research Analyst
Mortgage Solicitor
Real Estate Sales/Broker
Stock Broker
**Teller
*Underwriter

MASS COMMUNICATIONS
Ad. Layout/Makeup Spec'st
Camera Oper./Project'ist
*Copywriter
Editor
Offset Press Operator
Photographer
Printer
Publisher
Recording Engineer
Reporter

ENTERTAINMENT/ARTS
Amusement Park Oper.
Artist/Sculptor
Dancer/Singer
Director/Producer
**Horse Trainer
Musician/Composer
Stage Lighting Tech.
Stage Manager
**Theatre Manager
Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT
**Cook/Chef/Caterer
Cosmetologist
Custodian/Janitor
Desk Clerk
Exterminator/Lawn Sprayer
Hotel/Rest./Franchise Oper.
Maid/Housekeeper
Maitre'D/Waiter/Waitress
Mortician/Undertaker
Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.
Counselor/Social Worker
Firefighter
Government Employee
**Lawyer
Military Person
**Police Officer
Politician
**Teacher/Child Care Worker
**Telephone Equip. Installer
Water Treatment Operator

HEALTH
Dental Para-Auxiliary
**Dentist
*Dietician
**Hospital Para-Auxiliary
**Nurse; LPN/RN
*Optometrist
*Pharmacist
Physician
**Veterinarian
X-Ray Technician

SCIENCE/TECHNOLOGY
Engineer, Civil/Environ.
Eng., Civil/Structural
Engineer, Electrical
Engineer, Electronic
Engineer, Industrial
Engineer, Mechanical
Engineer, Oceanic
Engineer, Traffic
*Meteorologist
*Research Analyst

FARMING/[illegible]CHING/NATURAL R
Crop Du[illegible]
Dairy Route Carrier
Diver
Farm Equipment Mechanic
Farmer
Harvest Hand, Citrus
*Horticulturist/Nursery Wor
Miner
Rancher/Animal Breeder
Water-Well Driller

TRANSPORTATION (E)
Airline Pilot
Auto Body Repairer
Auto Mechanic
Auto Rental Agent
**Driver, Truck
Longshore Worker
**Service Station Attendant
Stewardess/Steward
Ticket/Reservation Agent
**Travel Agent

CONSTRUCTION (E)

AIR CONDITIONING CONTRACTOR
ARCHITECT
BRICKLAYER
**CARPENTER/CABINET MAKER
ELECTRICIAN
EQUIPMENT OPERATOR
PAINTER
PLUMBER
ROOFER
SHEET METAL WORKER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Air Conditioning Mechanic
Asphalt-Planner Operator
Asphalt-Paving Machine Operator
Automatic-Door Service Worker
Auxiliary-Equipment Operator
Awning Hanger
Band Saw Operator
Band-Scroll-Saw Operator
Batterboard Setter
Billboard Erector
Blaster
Building Superintendent
Bulldozer Operator
Bull-Gang Operator
Cable Puller
Calibrator
Carpet Layer
Cement Mason
Chimney Builder
Cofferdam-Construction Supervisor
Conduit Installer
Construction Checker
Construction-Equip. Mechanic
Construction Estimator
Core-Driller
Crane Operator
Crushed-Stone Grader
Door Hanger
Drafter
Dragline Operator
Dredge-Dipper Tender
Dredge Lever Operator
Dredge Pipe Installer
Drywaller
Duct Installer
Equipment Installer
Floor Layer
Glazier
Hod Carrier
Housing Design Consultant
Iron Worker
Insulation Installer
Laborer
Landscape Gardener
Lock Tender
*Masonry/Concrete Worker
Millwright
Monument Setter
Mucking-Machine Operator
Mud-Jack Operator
Paperhanger
Pipe Cleaning Machine Operator
Pipe Fitter
Plasterer
Power-Shovel Operator
Rigger
Rock-Drill Operator
Rod Carrier
Scraper Operator
Shaft Installer
Sheet-Pile Hammer Operator
Shield Runner
Silo Erector
Steel Worker
Steeple Jack
Stone Mason
Supervisor
Surveyor
Terrazzo Worker
Tile-Conduit Layer
Timbering Supervisor
Tower-Excavator Operator
Trench-Digger

(E) For "Engineer" please see Science/Technology category.
* Least known by students
** Most known by students

MANUFACTURING (E)

DRAFTER
ELECTRONICS TECHNICIAN
*EXPEDITER
GARMENT CUTTER
INDUSTRIAL MAINTENANCE MECHANIC
MACHINIST
*QUALITY CONTROL TECHNICIAN
TOOL AND DIE MAKER
UPHOLSTERER/FURNITURE FINISHER
WELDER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Anodizer
Apparel Designer
Appliance Repairer
Assembly Line Worker
Automated Press Operator
Ball Machine Operator
Batter Mixer/Sealer
Benefits Coordinator
Bessemer Converter Blower
Bench Grinder
Boilermaker
Boring Machine Operator
Cannery Worker
Casting Operator
Cathode Maker
Clay Roaster
Cloth Designer/Tester
Core Extruder/Tester
Coorugator Operator
Crystal Cutter
Cupola Charger
Cut-Off Saw Operator
Dairy Processor
Diamond Powder Machinist
Die Barber/Caster
Doughnut Maker
Draw-Bench Operator
Drop-Hammer Operator
Electroplater
Embroidery Designer
Employment Manager
Flame Hardener
Fluoroscope Operator
Furniture Designer
Gear-Cutting Operator
General Manager
Grinding Mill Operator
Hammer Mill Operator
Handbag Designer
Hat Designer
Instrument Maker
Jewelry/Flatware Designer
Kiln Operator
*Labor Relations Director
Lathe Operator
Mathematical Technician
Miller
Mirror-Finisher
Milder
Novelties Designer
Ornamental Metalwork Designer
Packer
Paint Restorer
Pattern Maker
Plant Host/Hostess
Plastic Heat Welder
Pottery Maker
Process Control Operator
Production Manager
Pyrometer Operator
Sausage Meat Trimmer
Screw Machine Operator
Sewing Machine Operator
Shoe Designer
Sign Designer
Stitcher
Table Operator
Tile Designer
Timekeeper
Tool Crib Attendant
Tay Designer
Training Supervisor
Wage Analyst
Weaver
Wire Drawer
Wrapper

(E) For "Engineer" please see the Science/Technology category.
* Least known by students

RETAILING/WHOLESALING

APPLIANCE REPAIR SPECIALIST
BUYER/FASHION COORDINATOR/MODEL
**CASHIER/SALES CLERK
DISPLAY SPECIALIST
SALES PERSON, COMMISSION
SECURITY PERSON
SHIPPING/RECEIVING/INVENTORY CLERK
SUPERMARKET STOCK WORKER
VENDING MACHINE ROUTE PERSON
WHOLESALER/WAREHOUSE OPERATOR

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Advertising Designer
Assistant Buyer
Auctionner
Bagger
Butcher/Meat Cutter
Consumer Service Specialist
Credit Manager
Customer Service Representative
Delivery Personnel
Demonstrator
Fashion Artist
Fashion Model
Feed Store Operator
Florist
Floor Manager
Fork Lift Operator
Franchise Operator
Gift Wrapper
Hand/Machine Packager
Health Foods Operator
Home Lighting Demonstrator
Home Service Representative
Import/Export Operator
Inspector
Irrigation Supply Operator
Jeweler
Jobber/Distributor
Mail Order Filler
Manufacturers Representative
Marker
Merchandising Manager
Nursery Operator
Party Sales Assoc./Representative
Pawn Broker
Produce Specialist
Purchasing Agent
Sales Engineer
Sample Worker
Secondhand Dealer
Security Guard
Solicitor
Stamp/Coupon Redemption Clerk
Stock Control Supervisor
Supermarket Operator
Training Supervisor
Traffic Clerk
Wholesale Field Representative
Window Dresser

** Most known by students

BUSINESS/OFFICE MANAGEMENT/ACCOUNTING

- **BOOKKEEPER/BUSINESS MACHINE OPERATOR
- *CERTIFIED PUBLIC ACCOUNTANT
- CLERK TYPIST
- COMPUTER PROGRAMMER/ANALYST
- KEYPUNCH OPERATOR
- OFFICE MACHINE SERVICE PERSON
- PAYABLES/PAYROLL CLERK
- *RECEIVABLES/CREDIT CLERK
- **SECRETARY/STENOGRAPHER
- **SWITCHBOARD OPERATOR

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

- Administrative Assistant
- Auditor
- Bill Collector
- Budget Control Analyst
- Computer Operator
- Card-to-Tape Converter
- Console Operator
- Corporate Executive
- Credit Union Manager
- Data Processing
- Data Reduction Technician
- Data Typist
- Duplicating Machine Operator
- Equipment Mechanic
- Executive Secretary
- File Clerk
- Income Tax Specialist
- Interviewer
- Junior Executive
- Mail Clerk
- Mathematician
- Messenger
- **Office Manager
- Owner/President
- Peripheral Equipment Operator
- Personnel Clerk
- Personnel Counselor
- Personnel-Records Clerk
- Personnel Relations Administrator
- Position Classifier
- Receptionist
- Supervisor
- Systems Analyst
- Tabulating Machine Operator
- Tape Librarian
- Tax Clerk
- Timekeeper
- Transcriber-Machine Operator
- Job Analyst

* Least known by students
** Most known by students

BANKING/INSURANCE/REAL ESTATE/SECURITIES

- **BANK PRESIDENT/VICE PRESIDENT
- INSURANCE ADJUSTER
- INSURANCE AGENT/SALES
- LOAN OFFICER
- MARKET RESEARCH ANALYST
- MORTGAGE SOLICITOR
- REAL ESTATE SALES/BROKER
- STOCK BROKER
- **TELLER
- *UNDERWRITER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

- Actuary
- Bank Auditor
- Bank Cashier
- Bank Examiner
- Bank Vice President
- Claims Agent
- Credit Investigator
- Financial Aids Officer
- Financial Analyst
- Financial Economist
- Insurance Examiner
- Insurance Inspector
- Investment Analyst
- Mortgage Clerk
- Partner
- Private Invertigator
- Real Estate Appraiser
- Real Estate Clerk
- Real Estate Counselor
- Real Estate Escrow Clerk
- Real Estate Location Writer
- Real Estate Expense Posting Clerk
- Securities Analyst
- Trust Officer
- Vault Attendant

* Least known by students
** Most known by students

MASS COMMUNICATIONS

ADVERTISING LAYOUT/MAKEUP SPECIALIST
CAMERA OPERATOR/PROJECTIONIST
*COPYWRITER
EDITOR
OFFSET PRESS OPERATOR
PHOTOGRAPHER
PRINTER
PUBLISHER
RECORDING ENGINEER
REPORTER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Account Executive
*Advertising/Public Relations Exec.
Aerial Photographer
Art/Film Critic
Author/Novelist/Free-Lance Writer
Book Critic
Braille Proofreader
Cartoonist
Cinematographer
Circulation Manager
Classified Ad Clerk
Color Film Lab Technician
Commercial Photographer
Compositor/Linotype Operator
Consumer Writer
Continuity Editor
Control Room Technician
Copy Reader
Cover Design Artist
Darkroom Technician
Disc Jockey
Dubbing & Editing Engineer
Dubbing Machine Operator
Editorial Writer
Electronic Machinist
Feature Reporter
Film Editor
Film Laboratory Technician
Graphic Engineer
Identification Bureau Photographer
Illustrator
Inker and Opaque
Letterer
*Lithographer
Drafter
Master Control Engineer
Microphone Operator
Negative Cutter
News Director
News Photographer
News Specialist
Paper Deliverer
Paste-Up Artist
Photoengraver
Play Back Operator
Portrait Photographer
Production Supervisor
Proofreader
Promotion Manager
Public Information Specialist
Radio Telegraph Operator
Radio Telephone Operator
Radio/TV Announcer
Reel Room Operator
Renderer
Reproduction Technologist
Rewriter
Scriptwriter
Screen Examiner
Sign Painter
Sorter
Sound and Laboratory Engineer
Sound Cutter
Stationary Engineer
Technical Director
Teletypist
Television Film Field Coordinator
Title Writer
Typesetter
Video Operator
Video Recording Engineer

* Least known by students

ENTERTAINMENT/ARTS

AMUSEMENT PARK OPERATOR
ARTIST/SCULPTOR
DANCER/SINGER
DIRECTOR/PRODUCER
**HORSE TRAINER
MUSICIAN/COMPOSER
STAGE LIGHTING TECHNICIAN
STAGE MANAGER
**THEATRE MANAGER
USHER/TICKET TAKER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Acrobat
Actor/Actress
Aerialist/Trapeze Artist
Art Appraiser
Art Director
Athlete
Athletic Equip. Custodian
Athletic Team Manager
Athletic Trainer
Automobile Racer
Background & Title Artist
Blacksmith
Booking Agent
Bowling Desk Operator
Casting Director
Choral Director
Choreographer
Circus Agent
Circus Supervisor
Circus Trainmaster
Clocker
Clown
Conductor
Costume Designer
Dramatics Coach
Dog Trainer
Dramatist/Playwright
Equestrian
Flyer
Fortune Teller
Gallery Operator
Graphologist
Grip
Groom
High Wire Artist
Horse Exerciser
Horse-Race Starter
Horse-Race Timer
Hotwalker
Hypnotist
Jockey
Jockey Valet/Agent
Juggler
Kennel Master
Lyricist
Magician
Make-Up Specialist
Marine-Mammal Trainer
Mind Reader
Motion Picture Equipment Machinist
Motion Picture Narrator
Museum Operator
Music Arranger
Musical Instrument Repairist
Music Director
Night Club Operator
Orchestra Leader
Patrol Judge
Promotor/Public Relations
Prop Maker
Puppeteer
Racetrack Steward/Stewardess
Racing Secretary
Repertoire Specialist
Research Director
Ring Master
Rock and Roll Star
Scenic Artist
Score Writer
Script Clerk
Set Decorator
Show Person
Snake Charmer
Song and Dance Specialist
Special Effects Person
Stage Electrician
Stage Set Painter
Stand-In
Strip Tease Artist
Stunt Specialist
Sulky Driver

** Most known by students

PERSONAL/HOTEL/RESTAURANT SERVICES

**COOK/CHEF/CATERER
COSMETOLOGIST
CUSTODIAN/JANITOR
DESK CLERK
EXTERMINATOR/LAWN SPRAYER
HOTEL/RESTAURANT/FRANCHISE OPERATOR
MAID/HOUSEKEEPER
MAITRE'D/WAITER/WAITRESS
MORTICIAN/UNDERTAKER
TAILOR/SEWER/MENDER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Apartment House Manager
Baby Sitter
Baggage Attendant
Baker
Barber
Bartender
Bellhop
Blind-Aide
Boarding House Manager
Bonding Agent
Bridal Consultant
Butler
Dining Room Attendant
Cake Decorator
Camp Attendant
Car Hop
Chaperon
Chauffer
Checkroom Attendant
Cooling-Room Attendant
Counter Sales Person
Desk Clerk
Dishwasher
Door Servant
Drapery/Upholstery Estimator
Dry Cleaner
Engraver
Escort
Flatwork Finisher
Food and Beverage Analyst
Food Products Tester
Food Service Supervisor
Fumigator
Funeral Director
Furniture Cleaner
Governess/Nurse Maid
Hair Stylist
Hatter
Health Spa Attendant
Hot-Room Attendant
Interior Designer/Decorator
Kitchen Steward/Stewardess
Launderer
Linen Room Attendant
Locker-Room Attendant
Locksmith
Lodging Facility Worker
Lodging Manager
Manicurist
Masseur/Masseuse
Piano Technician
Pet Groomer
Porter/Room Service Clerk
Private/House Detective
Private Household Worker
Receiving Room Clerk
Reducing Machine Operator
Resort Worker
Rest-Room Attendant
Reweaver
Rug Cleaner
Scalp Treatment
Shoe Repairer
Stone Cutter
Swimming Pool Servicer
Tatoo Artist
Valet
Watch Repairer
Wig Dresser

* Least known by students
** Most known by students

GOVERNMENT/UTILITIES/PUBLIC SERVICE

COUNSELOR/SOCIAL WORKER
FIREFIGHTER
GOVERNMENT EMPLOYEE
**LAWYER
MILITARY PERSON
**POLICE OFFICER
POLITICIAN
**TEACHER/CHILD CARE WORKER
TELEPHONE EQUIPMENT INSTALLER
WATER TREATMENT OPERATOR

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Archivist
Attendant
Bailiff
Boiler Operator
Budget Consultant
Building Inspector
Bureau of Standards Supervisor
Caseworker
Camp Counselor
City/County Engineer
City Manager
Clergy, Protestant
Career Planning & Placement Couns.
Compliance Investigator
Compressor Station Engineer
Consumer Affairs Agent
Consumer Service Specialist
Councilman/woman
County Commissioner
County Health Officer
County Home-Demonstrator
Court Clerk
Court Reporter
Criminologist
Customs Inspector
Drivers License Examiner
Drug Enforsement Agent
Economist
Electoral Clerk
Employment Counselor
Environmental Coordinator
Evaluator
FBI Agent
Field Health Officer
Four-H Club Agent
Garbage Collector
Gas Plant Operator
Gas/Power/Water Meter Reader
Golf Club Manager
Groundskeeper
Historian
Information Operator
Internal Revenue Agent
Jailer
Judge or Clerk of Court
Labor Union Agent
Language Interpretor
Librarian/Public Records Clerk
Lifeguard
Line Maintainer
Linguist
Load Dispatcher
Mayor
Occupational Specialist
Park or Recreation Director
Parole Officer
Pest Control Inspector
Postal Worker
Post Manager
Post Office Worker/Mail Carrier
Principal
President of U.S.
Priest
Probation Officer
Process Control Operator
Public Utilities Sales Representative
Public Works Superintendent
Rabbi
Rehabilitation Counselor
Representative (State or Congress)
Safety/Sanitary Inspector
Safety Engineer
Senator (State or U. S.)
Septic-Tank Servicer
Sheriff
Sociologist
Statistician
Teacher's Aide
Telegraph Engineer
**Telegraph Operator
Telephone Operator
Translator
Urban Planner
Utility Worker
Wast Water Treatment Worker
Welfare Worker

** Most known by students

HEALTH

DENTAL PARA-AUXILIARY
**DENTIST
*DIETICIAN
HOSPITAL PARA-AUXILIARY
**NURSE, LPN/RN
*OPTOMETRIST
*PHARMACIST
PHYSICIAN
**VETERINARIAN
X-RAY TECHNICIAN

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Administrative Assistant
Admitting Officer
Ambulance Driver
Biochemistry Technologist
Blood Bank Technologist
Central Supply Aide
Central Supply Supervisor
Chiropractor
Contact-Lens Technician
Cytotechnologist
Dental Assistant
Dental Hygienist
Dental Laboratory Technician
Director of Volunteer Services
Electrocardiograph Technician
Electroencephalagraph Technician
Histologic Technician
Hospital Administrator
Industrial Nurse
Inhalation Therapist
Laboratory Technician
Lens Grinder
Medical Record Librarian
Medical Technologist
Nuclear Medical Technologist
Nurse's Aide
Nurse Anesthetist
Obstetrical Technician
Occupational Therapist
Optician
Orderly
Osteopath
Physician's Assistant
Physical Therapist
Podiatrist
Psychiatrist Aide
Psychiatric Nurse
Psychologist
Public Health Educator
Radiological Health Specialist & Technician
Recreational Therapist
School Nurse
Social Worker
Speech Pathologist/Audiologist
Surgeon
Surgical Technician
Ward Clerk

* Least known by students
** Most known by students

SCIENCE/TECHNOLOGY

ENGINEER, CIVIL/ENVIRONMENTAL
ENGINEER, CIVIL/STRUCTURAL
ENGINEER, ELECTRICAL
ENGINEER, ELECTRONIC
*ENGINEER, INDUSTRIAL
ENGINEER, MECHANICAL
ENGINEER, OCEANIC
ENGINEER, TRAFFIC
*METEOROLOGIST
*RESEARCH ANALYST

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Aeronautical Engineer
Aerospace Engineer
Agrogeologist
Air Analyst
Alternative Energy Engineer
Analytical Chemist
Aquatic Biologist
Archeologist
Astronomer
Bacteriologist
Biochemist
Biological Aide
Biologist
Biophysicist
Botanist
Ceramic Engineer
Chemical Engineer
Chemist
Citriculturist
Computer Programmer
Ecologist
Economic Botanist
Entomologist
Environmental Lab Supervisor
Etymologist
Electronic Technician
Field Engineer
Food Chemist
Food Microbiologist
Food Processing Technician
Genealogist
Geneticist
Geographer
Geologist
Geophysicist
Hoisting Engineer
Hydraulic Engineer
Hydrologist
Illuminating Engineer
Industrial-Waste Inspector
Lubricating Engineer
Maintenance Engineer
Marine Geologist
Marine Geophysicist
Mechanical Technician
Metallurgical Engineer
Microbiologist
Nuclear Scientist
Oceanographic Technician
Petroleum Engineer
Physicist
Physiologist
Plant Ecologist
Plant Taxonomist
Pollution Control Specialist
Product Design Engineer
Radiation Monitor
Research Nutritionist
Scientific Linguist
Seismograph Operator
Soil Scientist
Solar Engineer
System Analyst
Test Engineer
Textile Chemist
Water Purification Chemist
Water Tender
Weather Observer
Wildlife Biologist
Zoologist

* Least known by students

FARMING/RANCHING/NATURAL RESOURCES

CROP DUSTER
DAIRY ROUTE CARRIER
DIVER
FARM EQUIPMENT MECHANIC
FARMER
HARVEST HAND, CITRUS
*HORTICULTURIST/NURSERY WORKER
MINER
RANCHER/ANIMAL BREEDER
WATER-WELL DRILLER

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Agricultural Economist
Agricultural Engineer
Animal Ecologist
Animal Scientist
Animal Taxonomist
Beekeeper
Blaster
Compress Operator
Cotton Classer
Dairy Production Technician
Egg Handler
Farmhand
Farm Manager
Feed Helper
Feed Research Aide
Fisher
Fishery Biologist
Fish Culturist
Fish Farmer
Fish and Game Warden
Fish-Machine Feeder
Fish/Wildlife Specialist
Floriculturist
Forest Ecologist
Forest Fire Fighter
Fruit Picker
Game Keeper
Grain Elevator Superintendent
Grove Owner/Manager
Grove Worker
Harvest Contractor
Hatchery Oper./Incubator Specialist
Hunting/Fishing Guide
*Irrigation Engineer
Livestock Production Technician
Logger
Log/Pulp Scaler
Mine Machinery Mechanic/Operator
Mining Engineer
Oil Field Worker
Oil Well Cementing Tool Operator
Orchard Sprayer
Pipe Line Supervisor
Plant Breeder
Poultry Meat Farmer
Poultry Vaccinator
Power Farm Machinery Operator
Quarry Worker
Ranger Conservationist
Rig Builder
Rotary-Driller Helper
Roustabout
Saw Mill Worker
Seed Analyst
Seed Cone Picker
Soil Conservationist
Sponge Clipper
Stripper-Well Pumper
Trapper
Tree Nursery Manager
Tree Surgeon
Weed Inspector
Wildlife Technician

* Least known by students

TRANSPORTATION (E)

AIRLINE PILOT
AUTO BODY REPAIRER
AUTO MECHANIC
AUTO RENTAL AGENT
**DRIVER, TRUCK
LONGSHORE WORKER
**SERVICE STATION ATTENDANT
STEWARDESS/STEWARD
TICKET/RESERVATION AGENT
**TRAVEL AGENT

The following worker titles were considered in the selection of the 10 "most representative" occupations listed above:

Airline Radio Officer
Air Traffic Controller/Tower Oper./
  Control Room Operator
Astronaut
Automobile Service Specialist
Baggage Handler
Brake Holder
Bus/Taxi Driver
Cab Supervisor
Car Distributor
Cargo Agent
Coating Inspector Pipeline
Conductor
Dispatcher
Dock Manager
Elevator Operator
Engine Dispatcher
Flight Engineer
Freight Operations Personnel
Furniture Mover
Natural Gas Field Processing
  Supervisor
Hotel Travel Representative
Industrial Traffic Controller
Load Control Agent
Loading Rack Supervisor
Lock Personnel
Main Line Station Engineer
Marine Architect
Marine Engineer
Marine Electronic Specialist
Marine Engine Machinist
Monorail Driver
Motorboard Mechanic
Motor Operator
Navigator
Parking Lot Attendant
Passenger Agent
Pump Operator
Purser
Road Supervisor of Engines
Route Supervisor
Sailor
Service Station Manager
Ship Captain
Ship Crew Worker
Signal Supervisor
Switch Tender
Taxi Service Operator
Tourist Guide
Trackwalker/Linewalker
Transportation Clerk
Travel-Accommodation Appraiser
Travel Advisor
Travel Agency Executive
Travel Bureau Librarian
Turntable Operator
Wharf Worker
Yard Worker

(E) For "Engineer" please see the Science/Technology category.
** Most known by students

Instrument Development Summary

(Please refer to Instruments 2a, 2b, 2d - Knowledge of Occupations.)

1) The 2a instrument has demonstrated significant differences between experimental/control students on repeated occasions. It also shows a correlation between higher scores and maturation.

2) The 2b instrument, when submitted to the Pinellas workshop participants, elicited the following comments: "We got a tremendous response when we asked for jobs in certain categories such as House, Hospital, Garden, City Workers" . . . and "I like 2b more than 2a . . . it shows better comprehension because it collects data on more than one type of worker needed to do a job."

   The form was pilot tested using 15 second grade Broward students who attempted to complete the form without spelling assistance. Spelling assistance will be provided during Post-Testing as with the 2a form. The readability formula indicated a 6th grade reading level for this instrument . . . but second grade students clearly comprehended all 13 categories of the form. The form was revised for greater simplicity following the Orange and Broward post-tests.

3) The 2d instrument was created from an original item on the 2e/2f form which asked students to identify workers as unskilled, semi-skilled, skilled, professional or managerial. The managerial category was dropped as EPIC members considered several skilled and professional workers which were also managerial. Unskilled was combined with the semi-skilled category as it was difficult for EPIC members to discriminate on several occupations. The resulting unskilled or semi-skilled category became the "Least Training" category; the professional category became the "Most Education" category; leaving the skilled workers to separate these other two categories.

   The Pinellas workshop participants and Broward students (who pilot tested the instrument) suggested the following revisions to the form:

   a) Do not administer to students lower than the 7th grade.

   b) The following occupations were eliminated from the list because of possible ambiguities; Artist, Bank President, Cook or Chef, Copywriter, Equipment Operator, Hotel Desk Clerk, Lawyer, Meteorologist, Movie Director, Newspaper Publisher, Reporter, Telephone Operator, Ticket or Reservations Agent, Travel Agent.

   c) Put the "Most Education" responses on a different page from the "Least Training" responses. (Now called "Most and Least Preparation".)

   d) The Broward 4th grade students scored an average of about 40%.

Instrument Development Summary

(Please refer to Instruments #2e/2f - Knowledge of Occupations - Job Requirements and Functions.)

1) In an effort to produce a valid instrument in an area of the market which has none to few valid instruments, this instrument has undergone the most revisions. It originally consisted of 10 occupational categories, with 20 or 30 occupations per category, and 5 items per occupation for a total of 1300 items.

2) The first major revision produced 13 occupational categories, 10 occupations per category, and 3 items per occupation for a total of 390 items. A multiple True/False format was devised as a possible advantage over the typical multiple choice form (which rarely discriminates between students in the program and students not in the program). The Florida Jaycees CAP program was used as a checklist while reducing the number of occupations from 250 to 130. EPIC members modified 50% of the items before and after two field runs with Broward and Pinellas County students, grades 9 through 12, in the Spring of 1975.

3) During the summer of 1975, 390 items were categorized into 4 subsets while adding other items. The instrument contained 520 items while pre-testing in Broward, Orange and Pinellas Counties in October 1975. The 4 subsets of each occupation dealt with:

   a) The level of an occupation, from unskilled to professional or managerial.
   b) The education, training, licensing and union requirements of each occupation.
   c) The job function.
   d) Relationships with similar jobs.

4) Pre-test data was subjected to a computerized item analysis, producing 291 reliable items out of 520, as follows: subset a) 68 items; b) 71 items; c) 83 items; and d) 69 items. A consensus of comments from EPIC members and Orange County staff members reduced the format to 8 occupations per category with 2 items per occupation for a total of 208 items. Orange County staff members voted to retain only the b) and c) item subsets; b, c items were retained with an occasional substitution of a d for a c item. The reliable items retained were: 38 b items, 51 c items, and 20 d items for a total of 109/223 or 49%, as compared with 208/390 or 53% of all items in the b, c and d subsets. Some responses were adjusted so that an equal number of True and False items remained.

5) Several items per category were substituted by EPIC members and the Broward staff as having greater Florida labor-market demand. New items were created; several were received from Project VIEW. The instrument was divided into matching forms, each containing 4 occupations per category from the list of 130, for a total of (8 x 13) 104 items. Several changes were made per the instructions of EPIC members: Allen, Bronson, Dockery, Ellyson, Foose, Forsetlund, Gaines, Gore, Haines, Harsin, Knepper, Lake, Miller, Mundell, Murr, Pettijohn, and Rowe. Many groups of items were considered at the 7th and 8th grade reading levels; others contained a technical content for which no reliable reading level could be determined.

6) The Pinellas participants suggested that "State of Florida" be used to qualify the Florida license, and also agreed with the assumption that teachers should instruct students on differences in occupations on a Statewide basis. Together with EPIC member comments, problems with 2e were found on items: 9, 11, 16, 31, 33, 39, 40, 43, 51, 56, 65, 67, 69, 73, 83, 86, 88, 90, 101, and 104. 2f problem items were: 5, 16, 18, 21, 36, 48, 49, 51, 60, 65, 70, 77, 90, 92, [illegible], and 99. These items were revised accordingly, and several moved to form 2f for final critique by EPIC members. Form 2e is complete.

Instrument Development Summary

(Please refer to Instrument #3a - Guidance for Realistic Career Decisions - Career Planning.)

This instrument was designed as a checklist-type aide to students and counselors, in the area of career planning. The items have been re-grouped and revised continually in order to provide four measurable dimensions of career planning:

1) Knowledge About Career Planning
2) Career Planning Activities
3) Talking About Careers
4) Decision-Making

Part a - Knowledge About Careers

Item 2) "There are tests available which can help you to decide whether to" . . . work with people, things, ideas or numbers.
Item 4) Deleted - (similar to present 5 item).
Item 11) Deleted
Item 13) Deleted
Item 10) Add - "or to retrain on-the-job".
Item 8) Eliminate "inter" from personal.
Item 9) Eliminate "characteristic".

Part b - Career Planning Activities Checklist

Items were re-ordered to produce a continuum from "looking at careers" to "enrolling in courses" to "class discussions" to "research studies" to "interest evaluations" to "working on skills or a job".

24) "Identified the kinds of work activities which interest me by evaluating my my own interests" was added.
27) "an employee" was added.
28) "or as a self-employed person" was added.

Part c - Talking About Careers

31) "or Relatives" was added.
32) Peer group was changed to "Friends or neighbors my age".
33) "Adult" was added.
38) "Employers or workers" was added.
39) "Military personnel" was added.

Part d - Career Decision-Making

"Possibly" was added to the "Yes", "No" response.

64) "with the help of a person interested in my career" was added.
65) "with an advertisement in the newspaper" was added.
76) "Get a part-time job while enrolled in further education" was added.
81) "Enter the armed services only as a training school leading to college

The Pinellas Placement Director wants to use this form as a substitute for their present Pre-Graduate survey.

Instrument Development Summary

(Please refer to Instrument #3b - Guidance for Realistic Career Decisions - Considering Careers.)

This instrument was designed in order that students in grades 8 through 12 may be provided an opportunity to identify with a number of occupations across the entire world of work, for eventual exploration. The 130 EPIC occupations are used to represent the entire world of work.

When selecting the original column headings, reference was made to Super: The Individual and His Environment: "Research shows that it is not traits, style . . . that determine occupational choice, success, and satisfaction . . . it is values, interests, aptitudes, and . . . performance level." Reference was also made to Ginzberg: Occupational Choice and Approach to General Theory: wherein the general discussion of Fantasy, Ability, and Reality dimensions of occupational self-concept were considered. Terms relating to style and traits were reserved for Instrument 4a.

The original column headings were as follows:

1) Average Interest/Strong Interest
2) Average Ability/Strong Ability
3) No Interest/No Ability
4) Decided to Work
5) Already working

In the first revisions, the following columns were added or changed:

1) I don't know this job
2) From "Some and Strong Interest" to "I like this job"/"I like this job very much"
3) From "Some and Strong Ability" to "I can do this work"/"I can do this work very well"
4) From "I have decided to work in this job" to "I want to be"
5) From "I am already working in this job" to "I do this now"

At the November 25th EPIC workshop for Orange County staff, the staff suggested some changes in the column headings which resulted as follows:

1) From "I like this job/I like this job very much" to:
    a) "I am interested in this work"
    b) "I want to know more about this work"
2) The "I can do this work/I can do this work very well" column is being eliminated, as it seemed to be a "shadow" of the "I like"column . This kind of information is collected in greater detail on Instrument #4b.
3) From "I want this job" and "I now have this job" to: "This work is related to my future career".
4) The "I am not interested in this" column is being added at the request of counselors.
5) "I don't know anything about this work" is moved over as the last column.

At the January 13th Workshop for Broward County staff, the column: "This work is related to my future career" was eliminated and the question placed at the end of the instrument. The 4 remaining columns were reformatted. Pinellas participants want to use the data results for small group sessions. This data is also used for the Most Known/Least Known asterisks to the 130 Occupations List.

Instrument Development Summary

(Please refer to Instrument #4a - Employment - Entry Skills - Acquiring a Job
[illegible] a Job.)

Part a - Job Expectations

The following items (unimportant according to students on a Likert Scale) have been deleted from this instrument, since the beginning of its development:

- Allow me to meet the right people.
- Allow me to retire when I am relatively young.
- Allow me to supervise work done by others.
- Allow me to work outdoors.
- Allow me to meet people who interest me.
- Allow me to work with my hands.

The Likert Scale (most important to least important) is being replaced with the "list 10 out of 20" form which has been successful in the "Work Habits" part of this instrument. The Likert Scale was not effective in showing differences between students.

Part b - Employee Work Habits

These items are effective indicators of EPIC-member priorities and are being retained in present form.

Part c - Employee Traits and Mannerisms

These items are effective indicators of EPIC-member priorities and are being retained.

Part d - Interviewing for a Job

The Likert Scale was used to eliminate the following items which were "least important" according to EPIC members and students:

- Be early for the interview.
- Find out how to pronounce the interviewer's name.
- Be prepared for at least one surprise question.
- Participate in a practice interview.
- Bring a pen and some paper.
- Get your good points across, but not in a conceited way.
- Remember not to smoke unless invited.
- Accept any criticism.
- Remember not to chew gum.
- Be pleasant and smile.
- Be perfectly honest about your financial affairs.
- Brush up on your manners.
- Shake the interviewers hand upon meeting and upon leaving.
- Gain some knowledge of why the company is in business.

Open ended items were added to each section as a result of the January 16th Conference. The responses of 24 EPIC members will be used as a weighted scoring key. These responses are in parenthesis after each item. The Pinellas workshop participants considered the data and weighted scoring key valuable for small group sessions with students.

Instrument Development Summary

(Please refer to Instrument #4b - Employment - Entry Skills - Inventory of Work Skills.)

There are a few instruments on the market which focus on work skills through interest tests. They are usually limited in their attempts to represent the skills used in the world of work through a small number of categories (usually 20 to 25), and related codes, and these categories are usually hybrids of occupational titles, student abilities, and workskills.

EPIC took the approach of building actual lists of critical work skills required by each of the 13 EPIC industrial categories representing the entire world of work, so as to lose nothing in translation through codes, smaller-so-called "representative" categories, or hybrids of grouped variables. This was done (to-date) through a combined effort of the EPIC membership, Broward and Orange County Career Education materials, and members of the Orange County staff.

EPIC members and Orange County staff members deleted many skills which could not be mastered by 12th graders. The current inventory of skills contains 18 skills times 13 occupational categories (total 234 skills) which employers would appreciate the schools teaching the students, and which (supposedly) can be mastered by 12th graders.

These skills could be put into Chart Form (similar to the 130 EPIC occupations). Orange County staff members suggested the development of a campaign to issue "Certificates of Proficiency" to students as they "master" each of the 234 skills.

In addition to the gradual reduction of the list from over 1500 work skills, the following modifications were made to this form:

- The columns "I could learn how to do this" and "I know how to do this" were deleted as being unnecessary and time consuming.
- A P.E. column (Physical Education) was first deleted, then reinstated.
- The "At Home" column was added.

Several items which 12th grade students could not master were deleted and others were added, as a result of the Broward Workshop and the January 16th Conference. The directions were also revised. The total number of work skills included are now 13 x 15 or 195, and are in rough order from simple to difficult tasks.

Selected EPIC members who owned or represented various companies were asked to "Check all of the skills which, if mastered in high school, would save your company valuable training time." One EPIC member said "They all would" which validates the entire list . . . the number of skills checked (out of 15 per category) are shown below:

	EPIC		EPIC
Construction	14	Restaurant/Hotel/Pers. Serv.	14
Manufacturing	13	Government	13
Retail/Wholesale	15	Health	15
Business	15	Science/Technology	8
Banking	14	Farming	10
Mass Communications	14	Transportation	14
Entertainment/Arts	11		

The Pinellas workshop participants said that a "Skills Certificate" could be issued to a Pinellas student for all of the EPIC skills. One Pinellas member suggested that all but a few of the skills were available at the 7th grade level.

Instrument Development Summary

(Please refer to Instruments 5a/5b - Attitudes Toward School and Careers)

These instruments were created as a part of a much larger system for identifying and referring probable early school leavers.

Pinellas workshop participants identified items which were suitable for 2nd through 5th grade students - these were put on form 5a. Revisions were also made to form 5b, for easier readability.

(Please refer to the Questionnaires for: School Coordinators (SC), Placement/Follow-Up Director (PF), Career Education Director (CE), Teachers (T), Parents (P), and Community Education Director (Com), indicated below:)

These 6 instruments contain questions related to the 10 EPIC components, as follows:

EPIC Components	SC	PF	CE	T	P	Com
#1 - Knowledge of the Economic System				x		
#2 - Knowledge of Occupations				x		
#3 - Guidance for Realistic Career Decisions				x		
#4 - Employment-Entry Skills				x		
#5 - Alternatives for Potential Early School Leavers	x					
#6 - Student-Worker Contacts	x					
#7 - Placement and Follow-Up		x				
#8 - Staff Development			x	x		
#9 - Community Involvement					x	
#10 - Community-School Facility Utilization					x	x
Overview of Components			x			

The 6 instruments have been reviewed by selected EPIC members at intervals of the project. Some data was collected using parts of the Teacher's Questionnaire during the field runs in Broward and Pinellas Counties in the Spring of 1975. District administrators and principals from the Broward, Orange and Pinellas career education projects reviewed the forms and made recommendations during the months of October through December, 1975. Data was gathered from the Orange and Pinellas districts for review by EPIC members during the January 16th conference. All but a minor number of items were retained as valid.

The Community Education Director's form was developed by Dr. Phillip Clark (EPIC subcontractor). The instrument was screened by the State Advisory Council for Community Education. Pilot data was collected from the Alachua County community education project.

EPIC DATA COLLECTION PROCEDURES

Introduction

The following is a documentation of the procedures and events which occurred during the EPIC data collections of March 1976, in the eighteen schools listed below in the districts of Orange, Broward and Pinellas, for the purpose of validating the developmental EPIC instruments and procedures:

Orange County Schools	Grade Levels
Lake Weston Elementary (Experimental)	E - 2, 3, 4
Rock Lake Elementary (Control)	C - 2, 3, 4
Walker Junior High (Experimental)	E - 7, 8 (and 9)
Liberty Junior High (Control)	C - 7, 8 (and 9)
Evans Senior High (Experimental)	E - 10, 11
Oak Ridge Senior High (Control)	C - 10, 11

Broward County Schools	Grade Levels
Pasadena Lakes Elementary (Experimental)	E - 2, 3, 4
Miramar Elementary (Control)	C - 2, 3, 4
Crystal Lakes Middle (Experimental)	E - 7, 8
Everglades Middle (Control)	C - 7, 8
Hallandale Senior High (Experimental)	E - 10, 11
McArthur Senior High (Control)	C - 10, 11

Pinellas County Schools	Grade Levels
Campbell Park Elementary (Experimental)	E - 2, 3, 4
Pasadena Elementary (Control)	C - 2, 3, 4
Seminole Middle (Experimental)	E - 7, 8
Tyrone Middle (Control)	C - 7, 8
Dunedin Senior High (Experimental)	E - 10, 11 (and 12)
St. Petersburg Senior High (Control)	C - 10, 11

It is an accurate account of procedures which could be replicated during another developmental cycle of the EPIC evaluation system. These procedures and events may change as the EPIC evaluation system is implemented in Florida schools. (Implementation alternatives will be discussed in the section of this report entitled "Implementing the EPIC Evaluation System".)

The March 1976 data collection procedures were developed and performed in coordination with the Career Education Project Coordinators (CEPC) of the Orange, Broward and Pinellas school districts.

The March, 1976 data collections served to validate the EPIC data collection procedure which was designed to satisfy the following project objectives:

1) To develop an instrument battery which will give many Florida students their first broad exposure to what they will need to succeed in the world of business, specifically:

    a) To provide all students with opportunities to develop career and economic knowledge.

    b) In addition to the above opportunities, to provide middle and senior high students with opportunities to develop career planning and decision making techniques.

    c) In addition to the above opportunities, to provide senior high students with opportunities which would expose them to knowledge, attitudes and skills used in the world of work.

2) To provide senior high students with opportunities which will expose them to the entire world of Florida occupations and the various dimensions of the field of economics.

3) To provide school administrators and staff members with checklists of career and economic elements which students will need to succeed in the world of business.

4) To provide valid instruments and procedures for collecting and analyzing data so that Florida school districts will have a valid and reliable method of demonstrating the progress of their career, economic and community education programs.

5) To develop a valid data collection procedure at each educational level (elementary, middle/junior and senior high school) within specified time limits, which students will find comfortable while proceeding to work through the EPIC instrument battery for that grade level.

6) To develop a method for continually involving business representatives, parents and educators in evaluating career, economic and community education, as members of a local evaluation committee in each Florida school district.

Scheduling and Organizing Community Resources for Data Collection

The best months for collecting data in the school year are during October and March. Scheduling was accomplished in coordination with the Career Education Project Coordinator (CEPC) of each school district who agreed to set aside an entire week for data collection in two elementary, two middle or junior high, and two senior high schools in that district.

Approximately one month prior to the dates set aside for the March data collection, the CEPC was asked to use the "Data on Student Populations" form (please see next page) to select "matching" experimental/control schools at each of the three educational levels. The CEPC sent the form to the principals of the (experimental career education project) schools where data was to be collected. When the completed forms from the experimental schools had been reviewed, other forms were sent to the principals of potential matching control schools. When the CEPC believed that a socio-economic and ethnic "match" had been attained at each level (elementary, middle/junior high and senior high school), the forms were submitted to the EPIC project office, along with a schedule for testing.

During this one month scheduling period, the EPIC Project Manager (EPM) requested that EPIC members who would like to review the data collections make a tentative commitment to be available on one of the days during the pre-scheduled week in either the Orange, Broward, or Pinellas districts. Members of the lay-community who were suggested by EPIC members were also asked to select a day when they would be available to review a data collection in process (please see the Post-Test Scheduling Form on a subsequent page).

The EPM requested that the CEPC schedule the experimental and control high schools early on the mornings of the first two days of the week. The experimental and control elementary schools were requested for the afternoons of these two days. The experimental and control middle (or junior high) schools were requested for the mornings of the third and forth days of the week.

The EPM informed the CEPC (who informed the principals) of the maximum time period required at each school: one hour maximum at the elementary schools; two periods at the middle (or junior high) schools (usually within 1 hour, 40 minutes); and two hours, 10 minutes maximum at the senior high schools.

The most appropriate space for testing high school students (usually in groups of 40 to 50) was the cafeteria. A library or large classroom was appropriate for middle or junior high students (usually in groups of 40 to 50). The cafeteria was most appropriate for elementary students (usually in groups of 60 to 75).

The entire battery of instruments was submitted to the CEPC and to the EPIC Contract Officer in the Vocational Division, who worked with the appropriate school district administrators for clearance before collecting data from students, staff, administrators and parents.

When the CEPC supplied the EPM with the schools, starting times, contact persons, meeting places, and instrument clearance, the scheduling process was completed

Data on Student Populations

1) What % of your students have parents who are:

___ a) Professional or Managerial parents
___ b) Sales, technical, clerical or skilled parents
___ c) Factory or other "blue collar" parents
___ d) Farm workers
___ e) Not regularly employed
___ f) On welfare

2) What % of your students are from families whose annual income is:

___ a) $20,000 or more
___ b) $15,000 - 19,999
___ c) $12,000 - 14,999
___ d) $ 9,000 - 11,999
___ e) $ 7,000 - 8,999
___ f) $ 5,000 - 6,999
___ g) Under $5,000

3) What % of your students represent the following groups:

___ a) American Indian
___ b) Black
___ c) Cuban
___ d) Mexican American
___ e) Oriental
___ f) Puerto Rican
___ g) White

4) Does your school use:	Yes	No
a) ESEA Title I assistance	___	___
b) Open spaced classrooms	___	___
c) Team teaching	___	___
d) Individualized instruction	___	___
e) Regrouping for reading across grade levels	___	___
f) Regrouping for match across grade levels	___	___
g) Career Education approach	___	___

EPIC-Member Evaluator Form

Please circle one of the dates below if you would be available for a half-day to assist the EPIC Staff in collecting data, using the EPIC Instruments, at one of the following locations:

	March 1976				
Orange County Schools	2	3	4	5	
Broward County Schools	9	10	11	12	
Pinellas County Schools	15	16	17	18	19

After we receive your tentative commitment, we will schedule testing on that date.

EPIC Member

Identification of Lay-Community Members

If you live in or near Broward, Orange, or Pinellas County, please suggest one or two lay-members of your local community whom you believe may be able to assist the EPIC staff in collecting post-test data in these three school districts.

Name (Title)
Address
Phone

Name (Title)
Address
Phone

Recommended by:

EPIC Member

Student Samples

At the elementary schools, the CEPC arranged for one second, one third, and one fourth grade class of students to be selected randomly.

At the middle (junior high) and high schools, students were drawn randomly from the bottom of several different class rosters for each grade level: grades 7 and 8 at the middle level; and grades 10 and 11 at the senior high level.

Second, third, and fourth grade students can be tested successfully while in the same room; so can seventh and eighth grade students. Ninth grade students were eliminated from the data collection as they were too far advanced for some of the 7-8 grade forms and could not cope with some of the 10-11 grade forms. There is also the problem that 9th graders are found in junior high schools in some districts and in senior high schools in other districts. Tenth and eleventh grade students can be tested successfully while in the same room. Twelfth grade students were eliminated from the data collection as many of these students leave for work early in the day and do not complete the test battery. Also, some of the students graduate before pre-post testing can be concluded, and before the information can be referred to teachers, counselors, and occupational specialists for the benefit of the twelfth grade students.

25 students per grade level were requested for data collection. Due to a number of reasons which are always inherent in any data collection, less than 25 students arrive and remain to take all of the tests, and data on 20 students per grade level per school is retained for the mean class average. Students were requested to bring pen or pencil with them; pencils were also provided by the EPM.

At the elementary level, the three teachers (2nd, 3rd and 4th grade) were requested to remain and assist during the data collection; at the middle school, two substitutes were requested to assist during the data collection; at the high schools, a student aide was requested.

Turn-Key Procedure

The EPM and a member of the EPIC staff performed the data collections in the first elementary, middle (or junior high), and senior high school, with the CEPC watching and taking notes on the procedures used. The EPM and CEPC reviewed these procedural notes after each data collection and prepared the CEPC to perform the data collection in the second elementary, middle (or junior high), and senior high school, with the assistance of a member of the EPIC staff and with the EPM observing and making suggestions. This is called a "Turn-Key" procedure and was used effectively to develop the CEPC's in two of the districts as data collectors. Whenever available, a laymember (of the local evaluation committee) reviewed the data as it was collected.

Elementary School Procedures

Elementary student data collections usually began between 9:00 a.m. and 1:00 p.m., depending on local convenience. The data was collected in the cafeteria in all schools.

Fourth graders were kept separate from second and third graders. Students were asked to sit with spaces between and across from each student. Pencils were made available for students who brought neither pencil nor pen.

Two data collection monitors were available for every 25 students at the second and third grade level, and one monitor was available for the fourth grade students (a total of 5 monitors were available for the typical group of 60 to 75 students at the second, third, and fourth grade levels).

The EPIC instruments were administered as follows:

EPIC Instrument	Administration Time and Procedure
#5a - Attitudes Toward School and Careers	This is normally a 5 minute instrument. It was administered first, as a warmup device, while students were getting settled. Students were asked to write their grade level and abbreviate their school on the form. A teacher read the directions and each item to the students at intervals suited to the pace of most students, and all students completed their forms together, within the allotted 5 minute time limit. Students were asked if they wanted another form. They said, "yes," and form 2a was distributed.
#2a - Worker Titles	This is a 10 minute, controlled time instrument. Students were asked to write their full name, grade level and school abbreviation at the top of the form. Teachers made sure that students spelled their last names correctly. Students were asked repeatedly, "Who doesn't have their name, grade level and school written on their paper?," until no student responded. After reading the instrument directions twice, students were told to raise their hands if they needed help spelling. All monitors helped students spell worker titles during the entire 10 minutes. Students were asked to hold up their pencils after 10 minutes, check to make sure their name and grade level was on the paper, and to pass their papers forward. Students were asked if they wanted another form. They said, "yes," and form 2b was distributed.
#2b - Workers in Different Industries	This is a 20 minute, controlled time instrument. Students were asked to write their full name, grade level and school abbreviation. A teacher read the directions and each item to the students at intervals suited to the pace of most students. Students were told to raise their hand if they needed help spelling.

EPIC Instrument	Administration Time and Procedure
#2b - Workers in Different Industries, Continued	All monitors helped students spell worker titles during the entire 20 minutes. (The closing procedure for the 2a instrument was used.)
#1a - Knowledge of the Economic System	This is normally a 5 minute instrument. Students were asked to write their full name, grade level and school abbreviation at the top of the form. A teacher read the directions and each item to the students at intervals suited to the pace of most students, and all students completed the form together within the allotted 5 minute time limit. When the forms were collected, the teachers took the students back to their classrooms.

Using the foregoing instruments and procedures, data were collected from the elementary schools on the dates and within the times recorded below:

County	School	Date	Grade Levels	Start Time	Total Time
Orange	Lake Weston	3/4	2, 3, 4	9:00 a.m.	1 hr./15 mins.
Orange	Rock Lake	3/2	2, 3, 4	9:15 a.m.	2 hrs.
Orange	Rock Lake	3/2	2, 3, 4	9:15 a.m.	2 hrs.
Broward	Pasadena Lakes	3/8	2, 3, 4	9:10 a.m.	50 mins.
Broward	Miramar	3/22	2, 3, 4	9:40 a.m.	50 mins.
Pinellas	Campbell Park	3/17	2, 3, 4	1:10 p.m.	50 mins.
Pinellas	Pasadena	3/18	2, 3, 4	1:20 p.m.	50 mins.

After two very long preliminary sessions wherein the Orange County CEPC and a member of the EPIC staff conducted the data collections without the assistance of the EPM (who was collecting data at other Orange County schools at the time), it appears that the procedure has been standardized within the 50 minute time period. There is currently an equivalent of 40 minutes of actual testing with 10 minutes between tests. Students do not appear to be fatigued at the end of the 50 minutes. A contributing factor in the reduction of time was the fact that the Orange County schools and the Pasadena Lakes school in Broward County used some relatively new instruments (1a, 1b, 2b and 5a) which were simplified prior to collecting data at the other three schools.

There was a problem of cross-talk at some schools. This should be eliminated during the implementation of the EPIC system by allowing students to sit on only one side of a table, leaving an empty seat between each student. (This also may necessitate testing one grade level at a time.) The cross-talk did not significantly affect the developmental data.

Middle (Junior High) School Procedures

Middle student data collections usually began between 8:10 a.m. and 9:00 a.m., depending on local convenience. The data were collected in the library in some schools and in a cafeteria or a large classroom in others.

Seventh and eighth graders sat with spaces between and/or across from each student. Pencils were made available for students who brought neither pencil nor pen.

Two testing monitors assisted with each data collection (one for every 25 students).

Students were advised that the forms were part of a program to help them with their career planning.

The EPIC instruments were administered as follows:

EPIC Instrument	Administration Time and Procedure
#5b - Attitudes Toward School and Careers	This is usually a 10 minute instrument. It was administered first, as a warmup device, while students were getting settled. (There was usually a problem of finding 20 students per grade level due to absences and communication failures . . . the school contact person was reminded that 20 students per grade level were required, and proceeded to pull other students at random from classes until 20 students per grade level were in the test area.) Students were asked to write their grade level and school on the form, and to proceed working on the form. When all students had completed the form, they were collected and form 2a was distributed.
#2a - Worker Titles	The 2a procedure for elementary students was used for middle students, with the exception that no spelling help was given to these students. Students were told to write on the back of the page if more space was necessary. When 10 minutes had elapsed, the forms were collected and form 2c was distributed.
#2c - Workers in Different Industries	Students were asked to write their name, grade level and school on the form, and to complete the form in 10 minutes. Directions were read to the students twice. Students were reminded not to write the same worker on the page twice. Students were told to raise their hand if they had a question regarding the form. When 10 minutes had elapsed, the forms were collected and form 2d was distributed.

EPIC Instrument	Administration Time and Procedure
#2d - Preparation for Employment	The procedure for form 2c was used. In addition, students were reminded to be sure they had checked only 10 occupations on each of the two pages. Students were told to raise their hand if they were unfamiliar with an occupation. The student was told what the worker does. When 10 minutes had elapsed, the forms were collected and form 1c was distributed.
#1b - Knowledge of the Economic System	The procedure for form 2c was used, with the exception that students were told to turn in the form when completed. Students were given form 3a with answer sheet as they turned in form 1b. (This procedure gave all students a chance to move around. Students were given a short break if required, on an individual basis. All students completed form 1b in the allotted time of 10 minutes.)
#3a - Career Planning	Students were asked to write their name, grade level, school and all responses on the answer sheet. Students were told to turn in the form when completed. When students turned in form 3a with answer sheet, they were given form 3b. (All students completed form 3a in the allotted time of 15 minutes.)
#3b - Considering Careers	No additional instructions were given with this form. When each student turned in this form, they were given the Critique form. (All students completed form 3b in the allotted time of 15 minutes.)
Critique	No additional instructions were given with this form. All student questions were answered. When students turned in this form, they were told that they had completed all the forms and that they should go to their class which was in session at that time.

Using the foregoing instruments and procedures, data were collected from the middle (and junior high) schools on the dates and within the times recorded below:

County	School	Date	Grade Levels	Start Time	Total Time
Orange	Walker Junior High	3/4	7, 8, 9	8:10 a.m.	1 hr./55 mins.
Orange	Liberty Junior High	3/5	7, 8, 9	8:25 a.m.	1 hr./45 mins.
Broward	Crystal Lakes Middle	3/11	7, 8	8:30 a.m.	1 hr./20 mins.
Broward	Everglades Middle	3/23	7, 8	8:15 a.m.	1 hr./30 mins.
Pinellas	Seminole Middle	3/18	7, 8	9:00 a.m.	1 hr./30 mins.
Pinellas	Tyrone Middle	3/16	7, 8	9:00 a.m.	1 hr./30 mins.

The procedure has been standardized within a 90 minute time period. There is currently an outside limit of 80 minutes actual testing with 10 minutes between tests. This procedure fits comfortably within two periods in these schools. These students do not appear to be fatiqued at the end of the 90 minutes. A contributing factor in the reduction of time from the hour and 55 minutes taken at the Walker Junior High was a more systematic turn-in procedure for forms 1b, 3a, 3b and the Critique.

There was a problem of cross-talk with approximately four students at each library table in the Walker and Liberty schools. The cafeteria or a large classroom should be used whenever possible to control this situation, with students sitting only on one side of a table and leaving an empty seat between each student. This cross-talk did not affect the EPIC developmental process, but should be controlled during the implementation of the EPIC system.

Senior High School Procedures

Senior high student data collections usually began between 7:50 a.m. and 12:30 p.m., depending on local convenience. The data was collected in the cafeteria in three schools. The auditorium was used at Evans, and large classrooms were used at Hallandale and Dunedin. Tenth and eleventh grade students sat with spaces between each student. Pencils were made available for students who brought neither pencil nor pen.

Two testing monitors assisted with each data collection (one for every 25 students). Students were advised that the forms were part of a program to help them with their career planning.

The EPIC instruments were administered as follows:

EPIC Instrument	Administration Time and Procedure
#5b - Attitudes Toward School and Careers	The 5b middle school procedure was used.
#2a - Worker Titles	The 2a middle school procedure was used. After 10 minutes, the forms were collected and form 3a with answer sheet was distributed.
#3a - Career Planning	The 3a middle school procedure was used. When students completed this form, they walked up to the front of the room, turned in the form and answer sheet, and picked up form 3b. (Students were allowed to work at their own pace, beginning with this instrument.)
#3b - Considering Careers	No additional instructions were given. When students completed this form, they turned it in and picked up form 4a.

ERIC Instrument	Administration Time and Procedure
#4a - Acquiring a Job	No additional instructions were given. When students completed this form, they turned it in and picked up form 4b. (All students completed this form in the allotted time of 15 minutes.)
#4b - Inventory of Work Skills	No additional instructions were given. When students completed this form, they turned it in and picked up form 1c (or matching form 1d). (All students completed this form in the allotted time of 15 minutes.)
#1c(1d) - Knowledge of the Economic System	No additional instructions were given. When students completed this form, they turned it in and picked up form 2e (or matching form 2f) with answer sheet. (All students completed this form in the allotted time of 10 minutes.)
#2e(2f) - Job Requirements and Functions	Students were told that this instrument was put together by 50 key industrial/business leaders in the state to survey knowledge of the many areas of work that their industries cover.
#2e(2f) - Job Requirements and Functions, Continued	Students were asked to write all of their responses on the answer sheet. When each student completed this answer sheet, they turned the answer sheet and form in and picked up the Critique form. (All students completed this form in the allotted time of 30 minutes.)
Critique	The middle school procedure was used. Students were told to take their 5-minute break on the way back to their class.

Using the foregoing instruments and procedures, data were collected from the senior high schools on the dates and within the times recorded below:

County	School	Date	Grade Levels	Start Time	Total Time
Orange	Evans	3/2	10, 11	7:50 a.m.	2 hrs./10 mins.
Orange	Oak Ridge	3/3	10, 11	8:00 a.m.	2 hrs./5 mins.
Broward	Hallandale	3/10	10, 11	8:40 a.m.	2 hrs./10 mins.
Broward	McArthur	3/12	10, 11	8:00 a.m.	2 hrs./10 mins.
Pinellas	Dunedin	3/16	10	12:30 p.m.	1 hr./50 mins.
Pinellas	Dunedin	3/19	11, 12	9:15 a.m.	1 hr./50 mins.
Pinellas	St. Petersburg	3/17	10, 11	8:30 a.m.	2 hrs.

The procedure has been standardized within a two-hour period. There is currently an outside limit of 120 minutes actual testing time. Some schools complete all of the forms in less than two hours. A number of students appear fatigued at the end of the test period, although many wrote on their critique form that the experience would help them. Some teachers and counselors thought that the two-hour session would be valuable as preparation for pre-college tests. If the 2e/2f form were reduced in size, almost all students would find the test period comfortable. There was little problem of cross-talk at this grade level providing all students were in a cafeteria with spaces between each student and all students were facing in the same direction. There was a problem of cross-talk at Evans High where this arrangement was not possible.

Before testing began, students on the list of 25, who were not present, were requested to come to the testing area over the school intercom. (This arrangement time was not counted in the two-hour testing time.)

When the school buzzer rang, most students were conditioned to taking a 5-minute break. Some schools were allowed to take the first 5-minute break, as some students needed to return to their first period class to collect their books. The second 5-minute break was optional for most students. A small number of students (3 to 5) did not want to miss their second period class, such as a math test or a driver's education class. These students were told to come back and finish their forms after their second period class.

Utilization of Community Personnel

Local community members who were present at the data collections, considered their role during testing to be that of "observer," rather than performing the data collection function. EPIC members suggested that the data collection function be performed by the EPIC, Inc. staff with the assistance of school support staff.

Lay-community members who were selected by EPIC members to represent them at the data collections reviewed the various aspects of the EPIC data collection and reduction procedures, as follows:

County	Community Member	
Orange	Sue Serio	Form directions and content.
Broward	Eva Williams	Form completion, organization for data reduction and use of data.
Broward	Judy Cannon	Organization for data reduction, and complete review of data for completeness and comprehension.
Broward	Martyn Reichle	Review of all instruments.

As a result of this review by community members, several forms were adjusted or revised for the final data collection in Pinellas County and three Broward County schools.

The EPIC Project Manager submitted the Career Education Director's Questionnaire, the Placement/Follow-Up Questionnaire, and the School Coordinator's Questionnaire to the CEPC. The Placement/Follow-Up Questionnaire was filled out by the District Placement Director. The CEPC reproduced enough copies of the School Coordinator's Questionnaire for distribution to every school in the district, where a counselor and/or an occupational specialist filled out the form. Forms were returned to the CEPC, who returned them to the EPIC project office.

Staff Data Collections

At the end of the data collection in each school, 25 Teacher's Questionnaires were given to a school coordinator to be distributed to 25 staff members. These forms were collected by the CEPC and returned to the EPIC project office.

Community Data Collections

The Community Needs Survey was placed in a stamped envelope, addressed to the EPIC Project Manager, and given to the CEPC of the Orange County district.

The CEPC distributed 25 envelopes per grades 10 and 11 to the occupational specialist of the experimental high school; 25 envelopes per grades 7, 8 and 9 to the principals of the experimental middle (or junior high) school; 25 envelopes per grades 2, 3 and 4 to the principal of the experimental elementary school. These people, in turn, distributed the envelopes to the teachers who asked the students to take the envelopes home to their parents. The parents filled out the forms and mailed the package to the EPIC project office.

The Community Education Director's Questionnaire was pilot tested separately from the March, 1976, data collections, because there was no viable Community Education project in the Broward, Orange, or Pinellas school districts.

Re-Test

Evans Senior High was tested a second time on April 12, 1976 due to a number of factors which invalidated the data from the first group of students. These factors included; 1) students reacted negatively to the proposal of taking the same battery of tests a second time (having been pre-tested in October), much data had to be discarded; 2) the data collection procedure was not yet standardized at this time; 3) some students had to wait an unusually long time for all students to come to the testing area; and 4) many students did not complete the forms due to other commitments.

The April 12, 1976 student group was not assembled from the bottom of class rosters and did not, therefore, conform to the rules for randomization which had been set up for other groups. The group was random selected from several classes, however.

ORGANIZATION OF DATA FOR REDUCTION

Data Reduction Volumes

Over 2,800 students, 600 staff members, 25 administrators, and 350 community members from the Orange, Broward and Pinellas school districts contributed data which was used to validate the EPIC instrument battery at several intervals of the project.

One can only begin to appreciate the volume and complexity of the instrument development task when viewing the multiples of the data reduction process. During the post-tests alone, 18 schools were used for the data collection. In each school two or three grade levels were tested, 20 to 25 students per grade level. Each student completed an average of seven forms, with an average of just under three pages (or from 10 to 195 items) per form.

Twenty-five students per each selected grade level were requested to be present at the beginning of the data collection for each school, in order to guarantee a sample of 20 for each grade level. As each instrument was completed, one of the test monitors sorted each instrument by the last name of the students within a grade level.

Data for 20 students whose last names began with letters at the bottom of the alphabet, was retained for analysis. Each group of 20 instruments was checked against the class roster of the 20 selected students for proper spelling. Any student who did not complete all instruments was dropped from the group before reduction. (As mentioned previously, some high school students excused themselves for a variety of reasons such as work or other tests.)

During the pre-test in October, 1975, a different procedure was used. After throwing out students who had misinterpreted the directions, the 20 students per class who had completed all tests, with last names beginning with the bottom of the alphabet were retained. This procedure gave the benefit to higher pre-test averages, making significant pre-post differences somewhat more difficult. Misinterpreting directions was not a problem on the post-test instruments.

The students from the March, 1976, data collection who were retained for data reduction, are listed on the following pages. Students with asterisks beside their names were retained for data reduction during the September-October, 1975 pre-tests.

Orange County

Lake Weston Elementary (Experimental)

Second Grade

* Doug Erisman
* Jeff Galic
* Gigi Griffin
* Jason Hough
* D'Ann Haynes
* Colin Kemp
* Michael Kinnamon
* Stevie McClellan
* Melissa McGaffin
* Lori Meldrum
* Mike Patterson
* Lisa Ridley
Marion Rundle
John Sanford
* Monica Suess
* Shannon Smith
Christopher Sponer
* David Weber
Tony Wafford
Janet Wolf

Eliminated

Gaye Chester
Amy Seinbach
Harvey Taylor
Sharie Wilson
Gary Yeomans

Third Grade

* Lisa McElwee
* Shawn Moon
* Deanne Moore
* Fernando Ortiz
* Sun Park
* Jodi Patterson
Michael Perez
* Jackie Robinson
Vince Rollins
Shirley Seemayer
* Michelle Snyder
* Lori Via
Lori Walls
* Carla Webb
Cheryl Werner
Natalie West
* Tommy Wheeler
Robert Williams
* Brent Willis
Joseph Worme

Eliminated

Doug McClymont
Dennis Stafford
Trig Surrutt
Tyrone Walker
John Weeden

Fourth Grade

* Peggy Jemison
Mary Joiner
Jane Leatherman
Sallie McClain
* Johnny McLaughlin
* Lynn McMullen
* Donna Rasch
William Shipp
Billy Vass
* Nicky Vonn Klock
Clara Walden
Robert Walker
* Elanor Wartell
Tracy White
* Sherrie Wilkie
* Deidre Williams
Christine Wilson
Vickie Wilson
Dewana Wofford
Michael Worley

Eliminated

Kellie Druger
Scott Fulton
Kenny Halladay
Julie Harris
Shannon Kelly

Orange County

Rock Lake Elementary (Control)

Second Grade

Jennifer Lawson
Malia Lemon
William Martin
Andre Miller
Lee Ann Moore
Michael Morris
Christopher Nelson
Stacy O'Donnell
William Perkins
Latonya Pittman
Mark Proctor
Robin Ravenell
Thomas Rayam
Michael Samuels
Vanessa Spencer
Gwendolyn Turner
Jerome Veley
Alphonso Ward
Rochelle Ward
Lewis Winters

Eliminated

Cindy Holder
Canace Martin
David Meredith
Kim Scott

Third Grade

Erral Colon
Jeanne Davis
Darrin Evans
Linda Evans
Glenda Hinton
Jeff Holmes
Susie Kinchin
Virgil McNealy
Carletta Mass
Andrew Prats
Rondald Powell
Loretta Smith
Lisa Stein
Tracy Terry
Teri Via
Yolonda Walton
Carl West
Dekalo Whitfield
Shiela Williams
Kathie Woods

Eliminated

Rufus Carnage
Ted Jewell
Charles Nobles
Ronnie Pittman
Anna Shade

Fourth Grade

Rhonda Ann Gillogly
Cassandra Honeycutt
Mazzie Jackson
Tyeese Johnson
Catrice Jones
Raymond Klimkowski
Frederick Love
Danielle Mohs
Donald Moore
Efren Nobles
Vernon Patterson
Robert Pesostski
Isaiah Robinson
Julie Snedegar
Shelton Sneed
Tabatha Stanford
Angela Sulton
Mark Thompson
Kristine Walton
Daren Wright

Eliminated

Gloria Edwards
Felicia Ervin
Tangela Freeman
Keith Likely
Mark Thompson
Leonard Morris
Kenner Biddick
Robert Raney
Sheri Chambers
Sundai Brown
Robin Caple
Inest Davis

Orange County

Walker Junior High (Experimental)

Seventh Grade

Darlene Aaron
Brett Barner
Richard Bidwell
Kelton Braxton
David Cable
Lynn Dorsey
* Scott Hall
* Jeffrey Hite
* Guy Lopez
* John Matthews
* Dawn Murtonen
* Olga Ortega
* Maria Pickel
* Greg Pruett
* Joseph Rohland
* John Smith
* Ken Workman
* Mark Toulbee
* Dennis Warren
* Stuart Ulrich

Eliminated

Melanie Engotrom
Robert Johnson
Cynthia Mercer
David Mobley
David Schmidt

Eighth Grade

Laura Burnett
Lisa Ann Cauthen
Alan Cuccarise
Gloria Grister
* Sharla Guinn
* Ron Hinderer
* Lori Jones
* Morgan Kerr
* Sonny Licht
* Debbie Luther
* Gabriel Maniecon
* Nancy O'Rourke
* Darrell Pampel
* Robin Row
* Danielle Sardillo
* Marzella Waddel
* Greg Wilnau
* Tommy Yates
* Lori Young
* James Yeaton

Eliminated

Jim Allen
David Beavers
Michael Lieble
Vickie Mercer
Wendy Ward

Ninth Grade

Susanna Abraham
Kelly Alligood
Dennis Arthur
Cynthia Bankston
Tracy Best
* Kimberly Fitzgerald
* Lisa Fornaralo
* Maria Franco
* Lorena Garcia
* Julie Garwood
* Leanell Gerraputa
* Krista Gilbert
Kenneth Gowan
* Donald Hampel
* Scott Straw
* Kimberly Trusik
* David Williams
* Karen Wilson
* Roger Workman
* Timothy Wrobel

Eliminated

Ken Faust
Lynn Grinrod
Wendy Harris
Mark Wells
Mark Witko

Orange County

Liberty Junior High (Control)

Seventh Grade

Deborah Sternich
Dawn Suarez
Julia Tatay
Karmann Thocher
Matthew Thomas
Leonard Thompson
Jeannette Torres
Kevin Trageser
Charlotte Varvel
Dorothy Vaughan
James Vinson
Susan Wallace
Mark Walley
John Watkins
Robert Weiss
Sandra Wimmer
Donna Woods
William Wright
Raymond Zakuluzny
Michael Zenrick

Eliminated

Jamie Stephens
Donna Strickland
Richard Weiss
George White
Willard Wilkerson

Eighth Grade

Sandye Walley
Lisa Ware
James Wells
Clifford Wentworth
Timothy Wetherbee
Matthew Wheeler
Cindy White
Brian Williams
Anita Williamson
Barbara Wilson
Phillip Withey
Michael Womack
Valerie Woods
Pamela Wyatt
Mildred Yarborough
Mark Yingling
Beverly Young
Nick Young
Walter Zakaluzny
Kevin Zimmerman

Eliminated

Carol Varvel
Patricia Vick
Sharon Wallace
Michael Weiss
Stephanie Winklee

Ninth Grade

Arlene Tuttle
Henry Way
Kenneth Way
Dalores Wells
Dwayne West
Tammy White
Edward Williams
Leonard Williams
Mark Williams
Sarah Williams
Curtis Williamson
Patricia Wilson
Elaine Winegar
Kathy Womach
Kenneth Wright
David Wrye
Allen Yingling
David Yingling
Tim Yocum
Connie Zenrick

Eliminated

Mamie Sprouse
Debbie Sykes
Valerie Turner
Susan White
Claude Zarn

Orange County

Evans Senior High (Experimental)

Tenth Grade

Dawn Ahlert
Kenneth Allison
Caroline Bischof
Chris Bolves
Connie Brooks
Tloa Christopherson
Kirby Claxton
Lisa Coats
Mark Cowart
Joan Cullity
Ron Davidson
Michael Davis
Bobby Dye
Jim Eifert
Denise Horstman
Harvey Johnson
Kelly Keck
Chris Kelaita
Jack Micel
Edith Smith

Eleventh Grade

Pam Arthur
Thomas Black
Pam Brandenburg
Rhonda Clark
Isreal Clay
John Combs
Margaret Davis
Helen Dupree
Jim Ivers
Karen Keck
Steven Ladd
Maurice Lambert
Jack LaRocca
Mary Maceachin
Anna Mathews
George McGill
Bill Mitchell
Vic Norberg
Sharon Panning
Todd Wagman

Oak Ridge Senior High (Control)

Tenth Grade

Mary Winter
Anne Wintsch
John Wojcik
Richard Wolfe
John Womack
Stephan Womack
Lori Wood
Renee Wood
Michael Wormack
George Wright II
Ronald Wysockl
Brenda Yoahum
Diane Yost
Bennie Young
Pamela Young
Randy Young
Scott Zgura
Damien Zenicola
Tina Zull
Franklin Zurschmit

Eliminated

W. Shannon
Kathy Clement
Debbie Wilder
Wilma Winegarner
Kitti Wright

Eleventh Grade

Kelly Clement
Toni Wienau
Barbara Williams
Ruby Williams
Karen Williamson
Kelly Williford
Lisa Wilson
Michael Wilson
Betty Windham
Paul Wetherington
Patricia Witho
Gregory Wolf
John Womack
Donna Wood
Reeda Woalfack
Vicki Worthington
Kenneth Wright
Catherine Wrobel
Belinda Younger
Scott Zubarik

Eliminated

Christine Wirick

Orange County

Evans Senior High (Experimental)

Tenth Grade

Randy Cameron
Darlene Chenevert
Mary Ann Gravel
* Joel Hanna
* Terry Heath
* Christa Hunt
Vickie James
Jeanette Johnson
Andrew Krall
* Claire McInerey
* Christine Perkins
* Sandra Rainey
* Mary Russ
* Stewart Shaffer
Michael Smith
* Sharon Thompson
* Suzanne Tweedy
* Brenda Upchurch
* Julie Vanlandingham
* Clay Zeller

Eliminated

David Mills

Eleventh Grade

David Barrowman
* John Beauford
Vickie Brooks
* Curtis Calhoun
* Glen Davis
* Ronnie Edgar
* Welma Fields
* Carol Golseloff
Jay Goodrich
* Patricia Helmer
* Georgia Ivory
* Lawrence Lennox
Sophia Morris
Wanda Payton
* Kenneth Sanders
* Tina Unrue
* John Wall
* Teresa Wilkerson
* Craig Williams
* William Williams

Eliminated

George Sinclair
Trinity Joiner

The data for this group of students was eliminated.

Broward County

Pasadena Lakes Elementary (Experimental)

Second Grade

* Dee Heslekrants
* Paul Kelley
Linda Lepore
Sandy Little
Lisa Maroney
Kim McManus
John Osteen
Richie Ramando
Dawn Rook
Maria Santana
Scott Schneider
Kevin Schiff
Andy Siegel
John Sittley
Leroy Smith
Joey Stofsky
* Jeff Thacker
Gregg Trotta
* Eric Williams
* Michelle Yates

Eliminated

Steven Hehn
Tonda Comey
Kiersten Cook
Greg Cook
Joey Dionofrio
Vicki Ann Gelfo
James Carlock
Dawn Belhumeur

Third Grade

Linda Daycock
* Melanie Denk
Mike D'Onofrio
* Lori Frandella
* Laura Hanford
* Billy Humphrey
Joy Hyer
Kelli Ichedt
* Kent Kennedy
Mike Marcovage
* Joey Nadeau
* Kevin Perry
* Jason Powderly
Jimmy Quitar
* Rachel Rivera
* Sharon Rochner
* Marilyn Santana
* Jennifer Segel
* Heather Smous
* Jeffery Ward

Eliminated

Tommy Beck
Donna Celrat

Fourth Grade

Kellie Gillespie
* Oliver Haschke
Beth Hollander
* Carl Holthrip
* Lisa Lindeman
Stacie Meyers
* Susie Michelson
* Rhonda J. Moore
Michelle Moschiano
* Mide Nueller
* Mark O'Laughlin
Janet Owens
* Roxanna Owens
* Guy Petrona
Patsy Pinfel
* Debbie Salerno
Howard Sefton
* Karl Stengeler
* Lee Weintraub
* Denise White

Eliminated

John Basile
Cheryll Birdsall
Jimmy Bohlen
Helene Cohen
Frank Gelbo

Broward County

Miramar Elementary (Control)

Second Grade

Maria DeDe
Alicia Duncan
Susan Felicella
Isiah Fleming
Mike Francis
Janice Hockaday
April Jackson
Mary Kuhn
Michael Manfredi
Karen Marble
Todd Moyer
Michelle Mulauliffe
Leydiana Papale
Rigoberto Peraza
Donna Powers
Manuel Presley
Dina Rossi
Judy Salome
Launa Watson
Gail Williams

Eliminated

Ricky Bist
David Bushatz
David Cash

Third Grade

Angela Butler
James Calvella
Mike Caruso
Pam Davis
Joey Dierna
Connie Cagliano
Jim Holder
Tara Latimer
Richie Mahfuz
Fabrizio Martinez
Jeff Moore
Mike Murray
Alfred Reed
Cliff Repsher
Danette Stryker
Gidget Temperato
Tyrone Tenney
Stacia Watson
Kim Weston
Todd Zeccardi

Eliminated

Roger Bartlett
Robin Boone
Jill Brickman
Robin Boone

Fourth Grade

Kathy Ann Crowley
Lisa Ann Davidson
Patricia Davis
Rachel Day
Danny Flaherty
Cindy Harris
Lile Hill
Tangela Jordan
Kristine Kosa
Ken Langley
Tracie Manspealcer
Tara McGowan
Ronnie Pahtuso
Victoria Poole
Todd Price
Jerrel Ray
Karen Sadlom
Jeffrey Salome
Denise Schofill
Allen Steed

Eliminated

Trisla Burford
Jody Bushatz
Lileaus Adelle Hill

Broward County

Crystal Lakes Middle (Experimental)

Seventh Grade

- * Jennifer Bink
- * Jeannie Burgess
- * Shirley Carlow
- * Carolyn Davies
- Barry Ezell
- Anthony L. France
- * Lynne Fuller
- Mirna Garcia
- * Pam Greene
- Tony Haubein
- Michael Lynn
- Barney McLaughlin
- Frank Meininger
- Stewart Moore
- Kathy Morrell
- Sandra Morrissey
- Juan C. Morejon
- Don Tagner
- Diane Tesmer
- Wayne Wilson

Eighth Grade

- Carol Benson
- Demitrious Christopoulos
- Bruce Cutts
- * Sandy Farrell
- Kelly Fritz
- * Debbie George
- Veronica Giles
- Joe Grace
- * Jeff Graley
- Chris Grandy
- * Ylonda Guthrie
- * David A. Hill
- * Bruce Hines
- * John Huebner
- * Ivan King
- Laurel Murray
- Norma Nedelund
- Sherri Picker
- Alan Robinson
- Diane Stuck

Eliminated

- * Nannette Arendt
- * Stephanie Bennet

Everglades Middle (Control)

Seventh Grade

- Jill Bowersox
- Sharon Gerardi
- Mike Hundley
- Russell Lind
- Jerome Smith
- Richard Stickney
- Albert Thomas
- Blaine Thomas
- Ohbar Thompson
- Serena Timmons
- Adam Turco
- John Watson
- Patricia Wilbanks
- Alfonso Williams
- Cynthia Williams
- Lyrace Williams
- Robert Williams
- Pamela Wilson
- Sharon Woods
- Sheila Ziegler

Eliminated

- Johnny Alexander
- Karen Bishop
- Jackie Jones

Eighth Grade

- Michael Aiken
- Don Binder
- Dawn Eichholz
- Sharon Flanagan
- Mike Legette
- James Lewis
- Dawn McDonald
- Charles Todd
- Billy Trebilcock
- Kurt Vogel
- Price Whitlock
- Beatrice Williams
- Pat Williams
- Johnnie Wright
- Sheila Wright
- Cieri Wrynn
- Gerard Yates
- Manny Yessi
- Lisa Young
- Michael Young

Eliminated

- Billy Underwood

Broward County

Hallandale Senior High (Experimental)

Tenth Grade

Don King
Carol Lemieux
* Vickie Schulwitz
Mark Smith
* Oliver Smith
* Kim Spark
* Kim Spiro
* Tim Tagliasacchi
Michael Thaggard
* Mark Thaggard
* Chris Thrax
* Lois Wallworth
* Calvin Ware
* Iry Joe Watson
* Maggie Watson
* Daryl Williams
* Cynthia Witherspoon
* Timothy Witherspoon
* Kathy Womack
* Barbara Woodlief

Eleventh Grade

Liz Barrow
Wanda Beaver
Denise Damour
Dunnel Jones
Robert Kazzoni
* Diana Singleton
* David Smith
* Teresa Smith
* John Talarico
* Catherine Thomson
* Larry Toney
* Paul Tossy
* Jeff Voelker
* Pearl Walker
* Kay Wamley
* Cecelia Washington
* Pat White
* Fred Webb
* Cynthia Williams
* Valerie Williams

McArthur Senior High (Control)

Tenth Grade

Vanessa West
Terry White
Aetheria Wiggins
Cindy Williams
Julie Williams
Lee Ann Williams
Phyllis Williams
Vickie Williams
Kathy Willis
Theresa Winter
Pam Wisley
Diane Wootton
Len Wroblewski
Tracy Wyrick
Terry Wyrick
Billy Yelton
Tammy Young
Laura Young
Lamia Young
Leigh Zakeemba

Eliminated

Beverly Walf
Novella Weaver
Ricky Williams

Eleventh Grade

Tracy Trend
Richard Vallejos
Loretta Villa Fona
Beverly Washington
Tom Watkins
Don Wecter
Nadine Weiss
Becky Weisner
Susan Whiteleather
Susan Wigglesworth
Tim Wilkins
Bob Wojtkiewicz
Leverne Woods
Carl Wright
Fran Wyath
Allan Wysick
Walter Young
George Zakaib
Margaret Zempleni
Aipa Zeno

Eliminated

Tim Taylor
Walter Thomas
Robert Touchstone
Joe Wilking

Pinellas County

Campbell Park Elementary (Experimental)

Second Grade

Gregory Bater
James Bowman
Mark DeFrees
Jimmy Evans
Susan Fishe
Tina Keller
Steven Kikly
Theodore Mims
Stephen Mize
Dianne Northrup
Laura Patinella
Daniel Pletcher
Stephanie Scheper
Jimmy Sellers
Cynthia Snyder
Brenda Sodi
Jimmy Springer
Scott Stevenson
Nicky Vaillancourt
Donna Witte

Third Grade

Tiffanie Barnett
Tony Del Buono
Peter Carbert
Douglas Delery
Sy Dixon
Mark Eades
Paul Ghigliotti
Denise Graver
Natalie Hempstead
Deanne Henderson
Danny Holthusen
Jeff Mills
Rhonda Moulton
Lisa Rice
Melissa Robertson
Mark Schroeder
Joey Tiller
Kim Truesdel
Russ Ward
Dawn Wright

Fourth Grade

Ronald Baker
Mark Bennett
Tommy Corney
Chris Delorey
Teralyn Dickey
Karen Hoban
Kirby Hoban
Michael Horowitz
Alan Kent
Tammy Kirkland
La Val Martin
Blake Meyer
Terry Molin
Julie Muller
Michele Northrup
Heidi Procup
Randy Reynolds
Kevin Smith
Scott Snyder

Pinellas County

Pasadena Elementary (Control)

Second Grade

Christie Dunner
Jenny Gash
* Michelle Gordon
* Maralyn Grissetto
* Rick Hollaway
* Bryce Jemison
* Jerel Edwards
* Mike Johnson
* Chris Kohut
* Jerry Murdain
* Esther Mincy
* Andrew Pupke
* Anthony Dion Rick
* Susan Richards
Christine Scherb
* Jim Sheets
* Susie Sindelar
* Frank Stegler
* Billy Tassorinop
* Sandra Winters

Third Grade

Amy Engle
Jackie Erwin
Tony Gamble
Michelle Gordon
* Liz Greenberg
* Debbie Hare
* Jackie King
* Scott Leavy
* Mae Millner
* Jill Nash
* Claudie Perfit
* Dennise Richardson
* Lara Sawyer
* Michele Segal
* Ira Slomka
* John Stallings
* David Zucher

Fourth Grade

Shelley Ahrens
Annette Anderson
Lisa Broome
Adrian Crumb
* Eric Holloway
* Kell Jemison
Chris Jordan
* Harry Maller
* Charley Mitchell
* Troy Mora
* James Pennington
* Danny Press
* Robert Richard
* Lorraine Seeley
Wendy Strucken
* Keith Walsh
* Scott Whittington
* Rodney Wolfe

Pinellas County

Seminole Middle (Experimental)

Seventh Grade

* Richard Aldridge
Linda Andre
* Diana Balslov
* David Barringer
* Connie Black
* Lisa Brooke
* Rick Calcutt
* Lisa Cancellieri
Marey Cohen
* Karen Duffy
* Carla Feeley
* Jerry Henry
* Elizabeth Kelly
* Valerie Kropp
Margie Nance
* David Paine
* Maria Projos
* William Rice
* Vick Tharp
* Lisa Yacks

Eighth Grade

Susan Amick
Tom Bailey
John Barber
Liz Crilly
Jeff Eberhart
Vicki Hackworth
Scott Hammondy
Stacy Lewis
Steven MacCallum
Tracy Raines
Robert Morrissey
Mary Numers
Lynn Pressley
Ricky Reinert
Jack Rowland
Julie Seymour
Brian Terhum
Tom Tuck
Irish Willett
Eric Zuckerman

Tyrone Middle (Control)

Seventh Grade

Patty Afeld
Bethany Arbutine
Mindy Boyles
Jayne Cameron
David Dostilio
Sharon Humbert
Richard Johnson
April Jordan
Martin Karnegie
Becky Kemerer
Samual Lane
Daniel McCall
Donna Merada
Stacy Remick
Lonnie Simmons
Robert R. Smith
Kelly Sorrell
Carla Whitehead
James O. Wimberly
Roslyn Workman

Eighth Grade

Mike Bristol
Marcus Brown
Robert Church
Mary DiFiore
Ken Dowdy
Eddie Emmons
Cheryl Fernandes
Lisa Greco
Raymond Hicks
Wanda Johnson
Laura Lewis
Chuck Mace
Darryl McKinnon
David Melillz
Greg Morgon
Billy Parker
Donna Rizzotto
Karen Smolic
Angela Wagner
Deborah Williams

Eliminated

Bart Azzaro

Pinellas County

Dunedin Senior High (Experimental)

Tenth Grade

- Peri Ford
- Susan Hayes
- Ross Hinton
- Bill Johnson
- Zelda Jones
- Robert Knaut
- Valene Koonce
- Lauren Littlejohn
- Dottie McCraney
- Pamela McLeod
- Tim Montville
- Vanessa Moore
- Stacy Payne
- Mark Rose
- Mike Skinholser
- David Skandalion
- Arlene Walker
- James Whiteherst
- Jeffery Wilson
- Rex York

Eliminated

- Sharon Bauman
- Janice Baur
- Marianne Blanquart
- Sarah Chapman
- Kelly Corso
- Steve Pickerson
- Catni Dougherty
- Barb Folly
- Collen Lowry
- Barb Foltz

Eleventh Grade

- Cissy Atkins
- Susan Belmar
- William Brown
- Rudy Burque
- Kevin Cantrell
- Ivy Cubb
- Charles Coley
- David Dean
- Roger Dunn
- Winston Edwards
- Kelly Fillback
- Bart Georgeades
- Jay Greene
- Pam Harrison
- Bruce Hayes
- Judy Henry
- Lynn Hurst
- Viki Kaspen
- Kathy Kniffin
- (Renee Riolo)

Twelfth Grade

- MaryAnn Callaway
- William Clinton
- Joann Curts
- Collin Elliot
- Thrien Evans
- Willard Duncan
- Keith Gasperson
- Cheryl Harriman
- Brian Hayes
- Sheryl Hopkins
- Jay Irion
- Mark Janson
- Michael Kelly
- Dianne Kenyon
- Chas Maebherter
- Mark Minnick
- Rick Rooks
- Doug Rushes
- Bill Scharf
- Roger Wincer

Eliminated

- Ronald Aikens
- Mike Beall
- Rusty Boatright

St. Petersburg Senior High (Control)

Tenth Grade

- Ken Abele
- * John Aldridge
- Jeff Bain
- Bill Barlow
- * Craig Bell
- Becky Brown
- Kathy Gravescoy
- Washann Growell
- * Mark Greene
- * Lois Ann Hayes
- Ricky Hedington
- Evelyn Holcombe
- Anita Macon
- Jim Massengill
- Terisia McNabb
- Sylvia Muller
- Tammy Palochak
- * James Piche'
- * Pat Richardson
- Tammy Stewart

Eleventh Grade

- Jim Beucher
- Sandy Bukowski
- Gerald Burns
- Jeff Gold
- Susie Hamilton
- John Hockensmith
- * Lisa Jones
- Woody Keel
- Wendel Martinkovik
- * Elizabeth Mordou
- Harry Powell
- Nancy Reeves
- * Darla Salisbury
- Mike Sever
- Barry Silverstro
- Rufus Smith
- Kurt Urich
- Mark Wanser
- * Pam Whateley
- Tina Williams

Eliminated

- Sharon Anzalone
- Rick Lasignan
- Tom Majors
- Willie Watkins

SCORING KEYS AND PROCEDURES

The following are scoring keys and procedures which have been used by the EPIC staff for each instrument below:

1a, 1b, 1c, 1d - Knowledge of the Economic System (grades 2 through 12)
One point for each response which corresponds to the following scoring key:

	Item Number																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1a	T	F	F	F	T	T	T	F	T	T										
1b	T	T	T	F	F	T	F	F	T	F	F	F	T	F	T	T	T	T	T	T
1c	F	F	F	F	T	T	F	T	F	F	F	F	T	F	T	F	T	T	F	T
1d	T	F	T	F	T	F	T	F	T	T	F	F	F	T	F	T	F	F	F	T
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1b	F	T	F	F	T															
1c	F	F	T	T	F	T	T	T	T	F	T	T	F	T	F	T	T	T	T	F
1d	F	T	F	F	T	F	T	T	T	T	T	T	T	F	F	T	T	F	F	F

2a - Worker Titles (Grades 2 through 12)
One point is given for every title of a worker (no points are given for worker activities, or what the worker does). No points are taken off for spelling errors, provided the kind of worker was clearly indicated.

No points were given for the three example worker titles, police officer, teacher and janitor; names of workers, i.e., Johnny Carson, mother; work activity rather than the title, i.e., sewing, a man who works in a factory; job titles used more than once, or the same job title under a different name, i.e., barmaid/cocktail waitress; illegible worker titles; titles that are not jobs, i.e., student; those that are not worker titles, i.e., construction, government; and job titles such as 7-11 worker, McDonald's worker, where waitress/waiter is more appropriate.

Points were given for general job titles, i.e., manager, executive, businessman; illegal jobs, i.e., prostitute; and job titles similar to the more common titles, i.e., money taker for bank clerk if bank clerk was not used.

2b/2c - Workers in Different Industries

One point is given for each correct worker title which corresponds to the occupational category in question (there are 13 occupational categories, with a possibility of 2 correct titles per category, for a possible total of 26 correct). Spelling assistance is provided as in form 2a.

2d - Preparation for Employment

One point for each response which corresponds to the following scoring key:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		M	L	L				L	M		M	M	L		L		M	M	M	M				L

26	27	28	29	30	31	32	33	34	35	36
	L		M		L	M	L	L		

2e/2f - Job Requirements and Functions

One point for each response which corresponds to the following scoring key:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2e	T	F	T	T	T	F	T	F	T	T	T	T	F	T	F	T	T	T	F	T	F	T	T	T	F
2f	F	T	F	T	F	T	F	F	F	T	F	T	F	T	F	F	F	T	F	T	F	T	F	T	T

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
2e	T	F	T	F	T	F	T	T	F	T	T	F	T	T	F	F	F	F	T	F	T	F	F	F	T
2f	F	T	T	T	F	T	F	T	F	F	T	T	T	F	F	F	F	F	F	F	T	T	T	F	F

	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
2e	F	T	T	T	F	F	F	T	T	T	F	F	F	T	T	T	F	T	T	F	F	T	T	F	T
2f	F	T	T	T	F	F	F	F	T	T	F	F	T	T	F	F	T	T	T	T	F	T	T	F	F

	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2e	F	T	T	T	T	F	T	T	F	F	F	F	T	T	T	F	F	T	T	F	T	T	T	F	F
2f	F	T	T	T	F	F	T	T	T	F	F	F	F	T	T	F	T	F	T	F	T	T	T	F	F

	101	102	103	104
2e	T	T	F	F
2f	T	T	T	T

3a - **Career Planning**

Part a - One point for each response which corresponds to the following scoring key:

1	2	3	4	5	6	7	8	9	10
D	A	A	D	D	D	D	A	A	A

Part b, c, d - One point for each circled **Yes** response. Total the number of Yes responses independently at the end of Part b, Part c, and Part d.

3b - **Considering Careers**

One point for each check in each column. Total columns independently. Indicate whether or not the student records a Career Choice at the end of the form; whether or not the student knows the education/training requirements involved; whether or not the student has or is taking courses in pursuance of the Career Choice.

4a - **Acquiring a Job**

Parts a, b, c, d - Weight each circled response according to responses of the aggregate of 24 EPIC members who were polled using this form; then add the weights of the 10 circled items for each page (or part).

EPIC Membership Responses:

Item #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Part a -	15	20	20	21	11	23	12	9	5	3	18	17	18	2	13	11	6	1	8	7
Part b -	0	5	23	19	3	5	5	8	11	23	15	9	22	9	19	5	20	8	11	20
Part c -	1	8	2	11	5	15	5	11	2	11	17	11	22	19	22	15	11	22	23	7
Part d -	23	16	10	21	14	20	13	19	4	20	7	16	5	2	2	8	11	13	8	8

4b - **Inventory of Work Skills**

One point for each check. Add each column independently. Total the circled checks independently.

5a - **Attitudes Toward School and Careers**

Add the Yes, No, and Don't Know responses. Order the items according to the aggregate weights of all students.

5b - **Attitudes Toward School and Careers**

Add the 1 through 5 Likert-type weights for each of the two parts of the form. Total the weights for each part. Order the items according to the aggregate weights of all students 7, 8, and 10, 11.

School Coordinator's Form, Placement/Follow-Up Form, Career Education Director's Form, Community Education Director's Form

Straight tabulation of all data.

Teacher's Form

Component #1 - One point for each check. Total columns independently.

Component #2 - One point for each check. Total all checks.

Component #4 - One point for each check. Total all checks. Total all circled checks independently.

Component #8 - Part a - Total the aggregate of responses on each line item. Order the line items from the high to low aggregate of responses.

Part b - Total the aggregate of responses for each item.

Community Needs Survey

Part a - Add the 1 through 5 Likert-type weights for each item. Order the items according to the aggregate weights of all parents.

Part b - One point for each circled A, I, N, 9, 16. Order the items according to the aggregate weights of all points.

Part c - One point for each check of a course. Add the points for each parent. Add the aggregate of all parents for each course.

DESIGN LIMITATIONS

In any "classical" evaluation design using experimental/control groups and/or pre-post test variances, the validity and reliability of the data depends on a number of factors which should be considered when reviewing the results of the March, 1976 data collections (as recorded in the next section of this report).

If it is assumed that valid and reliable instruments are being used to collect data from students, staff, administrators and parents, it is also desirable to control for the following variables:

1) "Matching" experimental and control student populations.

2) Timing of the data collections.

3) Environmental factors such as heat, noise, light, availability of pencils, availability of responses to questions, contamination of results, etc.

Some variables cannot be controlled, such as the intent of students to do their best on written tests, or the professional judgment and recall of administrators and staff when filling out survey forms. These variables can only be presumed as constant.

Even when all of the above factors are controlled or are constant, it can only be presumed that differences in class mean averages of student groups or the averages of teacher groups were caused by differences in career education programs. This is done until such time as a more rigorous study is conducted which correlates or distinguishes "cause" and "effect" of independent and dependent variables.

The following pages present data on the proposed "matching" experimental and control student populations. Data from these groups is limited, unless it can be demonstrated that these student groups were, in fact, identical.

Several judgments were made as to the proposed "matching" of groups for the purposes of instrument development. Judgments were also made as to the "trueness" of each control school, that is: Were the student groups reasonably free from the effects of career education programs?

The following abbreviations are used to represent the 18 schools involved in the post-test data analysis:

Orange County	Broward County	Pinellas County
Lake Weston Elem. (LW)	Pasadena Lakes Elem. (PL)	Campbell Park Elem. (CP)
Rock Lake Elem. (RL)	Miramar Elementary (M)	Pasadena Elementary (P)
Walker Junior High (WA)	Crystal Lakes Middle (CL)	Seminole Middle (S)
Liberty Junior High (LI)	Everglades Middle (EG)	Tyrone Middle (T)
Evans Senior High (EV)	Hallandale Senior High (H)	Dunedin Senior High (DU)
Oak Ridge Sr. High (OR)	McArthur Senior High (MC)	St. Pete Senior High (SP)

"Matching" Criteria	Orange County Schools					
	Elementary		Middle		Senior High	
	LW	RL	WA	LI	EV	OR
1) Percent of parents who are:						
a) Professional or managerial	12	18	12	13	21	15
b) Sales, technical, clerical or skilled	36	50	47	18	35	35
c) Factory or 'blue collar'	37	15	30	45	27	30
d) Farm workers			4	12	6	5
e) Not regularly employed or on welfare	15	17	7	12	11	15
2) Percent of parents whose annual income is:						
a) $20,000 or more		2	10	5	9	
b) $15,000 to $19,999	12	5	10	8	10	3
c) $12,000 to $14,999	10	60	12	18	24	50
d) $ 9,000 to $11,999	33	30	20	45	29	30
e) $ 7,000 to $ 8,999	20	2	10	12	15	7
f) $ 5,000 to $ 6,999	20	1	9	10	6	7
g) Under $5,000	5		29	2	7	3
3) Percent of parents who represent the following groups:						
a) White	74	47	82	98.4	70.00	80.00
b) Black	22	53	5	0.7	29.00	19.00
c) American Indian			3	0.1	0.01	0.25
d) Cuban	4		5	0.1		0.50
e) Puerto Rican			1	0.1		
f) Mexican American			2	0.5	0.98	
g) Oriental			2	0.1	0.01	0.25
4) Does the school use:						
a) ESEA Title I assistance?	Yes	Yes	No	No	No	No
b) Open spaced classrooms?	No	No	No	No	No	No
c) Career education approach?	Yes	Yes	Yes	No	Yes	Yes

"Matching" Criteria	Broward County Schools					
	Elementary		Middle		Senior High	
	PL	M	CL	EG	H	MC
1) Percent of parents who are:						
a) Professional or managerial	10	2	5	7	10	8
b) Sales, technical, clerical or skilled	65	10	20	5	20	15
c) Factory or 'blue collar'	10	40	50	53	40	55
d) Farm workers			10			2
e) Not regularly employed or on welfare	15	48	15	35	30	20
2) Percent of parents whose annual income is:						
a) $20,000 or more	14.1		5		3	12
b) $15,000 to $19,999	42.1	5	5	8	7	14
c) $12,000 to $14,999	28.7	5	10	77	10	14
d) $ 9,000 to $11,999	0.5	80	50		20	16
e) $ 7,000 to $ 8,999	0.2	5	20		20	16
f) $ 5,000 to $ 6,999	4.4	5	8		20	16
g) Under $5,000	10.0		2	15	20	12
3) Percent of parents who represent the following groups:						
a) White	94	78	61.0	45.3	61.9	84
b) Black	4	21	29.0	52.2	34.4	11
c) American Indian			0.5	0.2		
d) Cuban	1	1	7.0	1.8	2.7	4
e) Puerto Rican	1					
f) Mexican American						
g) Oriental			2.5	0.5	1.0	1
4) Does the school use:						
a) ESEA Title I assistance?	No	No	Yes	Yes	No	No
b) Open spaced classrooms?	Yes	No	Yes	No	No	No
c) Career education approach?	Yes	No	Yes	Yes	Yes	No

"Matching" Criteria	Pinellas County Schools					
	Elementary		Middle		Senior High	
	CP	P	S	T	DU	SP
1) Percent of parents who are:						
a) Professional or managerial	5	20	26	20	28.0	40
b) Sales, technical, clerical or skilled	10	23	34	34	44.0	30
c) Factory or 'blue collar'	10	54	26	25	23.0	23
d) Farm workers		3	1	1	1.7	
e) Not regularly employed or on welfare	75		13	20	3.3	7
2) Percent of parents whose annual income is:						
a) $20,000 or more		20	11	5	8	5
b) $15,000 to $19,999		32	13	10	13	45
c) $12,000 to $14,999	5		27	20	10	10
d) $ 9,000 to $11,999	5		21	20	31	10
e) $ 7,000 to $ 8,999	10	38	13	15	10	10
f) $ 5,000 to $ 6,999	40		10	10	11	15
g) Under $5,000	40	10	5	20	17	5
3) Percent of parents who represent the following groups:						
a) White	70	78	78.0	70	85	82
b) Black	30	21	19.0	27	10	17
c) American Indian			0.6		1	
d) Cuban			0.6	1	1	1
e) Puerto Rican			0.6		1	
f) Mexican American		1	0.6	1	1	
g) Oriental			0.6	1	1	
4) Does the school use:						
a) ESEA Title I assistance?	Yes	No	No	No	No	Yes
b) Open spaced classrooms?	No	No	Yes	No	Yes	No
c) Career education approach?	Yes	No	Yes	Yes	Yes	Yes

A "match" for the purposes of instrument development is based on the estimates of each school district. A "match" means that the experimental school does not show any significant advantage in population characteristics. (CA means that there appears to be an advantage in favor of the control school.)

Criteria	Orange County Schools		
	Elementary LW/RL	Middle WA/LI	Senior High EV/OR
1) Matching occupational categories?	Yes	Possible	Yes
2) Matching annual income?	Yes CA	Yes CA	Possible
3) Matching ethnic groups?	No	Yes	Yes
4) ESEA Title I?	Yes	Yes	Yes
5) Open spaced classrooms?	Yes	Yes	Yes
Career education approach?	Yes/Yes	Yes/No	Yes/Yes
There was a student "match" for the purposes of instrument development	Yes	Yes CA	Yes
There was a "true" control school which did not show clear indications of a career education program	No	Yes	No

Criteria	Broward County Schools		
	Elementary PL/M	Middle CL/EG	Senior High H/MC
1) Matching occupational categories?	No	Possible	Yes
2) Matching annual income?	No	Possible	Yes
3) Matching ethnic groups?	No	No	Yes CA
4) ESEA Title I?	Yes	Yes	Yes
5) Open spaced classrooms?	No	No	Yes
Career education approach?	Yes/No	Yes/Yes	Yes/No
There was a student "match for the purposes of instrument development	questionable	Yes	Yes
There was a "true" control school which did not show clear indications of a career education program	Yes	Yes	Yes

Criteria	Pinellas County Schools		
	Elementary CP/P	Middle S/T	Senior High DU/SP
1) Matching occupational categories?	Yes CA	Yes	Yes CA
2) Matching annual income?	Yes CA	Yes	Yes CA
3) Matching ethnic groups?	Yes	Yes	Yes
4) ESEA Title I?	Yes CA	Yes	No
5) Open spaced classrooms?	Yes	No	No
Career education approach?	Yes/No	Yes/Yes	Yes/Yes
There was a student "match" for the purposes of instrument development	Yes CA	Yes	Yes CA
There was a "true" control school which did not show clear indications of a career education program	Yes	No	No

Data on "matching" experimental and control groups was limited to the extent that these student populations were, in fact, identical in makeup. The "matching" groups were considered adequate for instrument development purposes; Pasadena Lakes versus Miramar in Broward County was questionable.

When the EPIC instruments are used in an actual evaluation, the average reading level of each group should be added to the form for collecting Data on Student Populations. In a conversation during the data collection with a member of a control school staff, it was discovered that the reading level of a particular student group may have been significantly different from the reading level of a proposed "matching" group.

The timing of the data collections was controlled, as reported in the section on Data Collection Procedures. The timing was "standardized" toward the end of the data collections: 50 minutes for elementary groups, 90 minutes for middle or junior high groups, and 120 minutes for senior high groups.

Environmental factors were controlled within the purposes of "data for instrument development and validation".

The current data reduction process is only partially manual and partially a computerized procedure. The total computerization of the procedure will probably not improve its accuracy or reliability, but will allow for a higher number of data samples to be included in a larger number of schools and districts.

The next section of this report is organized by EPIC instrument number so that the results and analysis for each instrument can be identified. The EPIC Instrument Battery (list) precedes the Results and Analysis Section for the convenience of the reader.

RESULTS AND ANALYSIS OF STUDENT DATA

THE EPIC INSTRUMENT BATTERY

Student Performances in Career and Economic Education:	Maximum Minutes	Grade Level Range		
		2-4	7-8	10-12
1a - Knowledge of the Economic System	5	x		
1b - Knowledge of the Economic System	10		x	
1c/1d - Knowledge of the Economic System	10			x
2a - Worker Titles	10	x	x	x
2b - Workers in Different Industries	20	x		
2c - Workers in Different Industries	10		x	
2d - Preparation for Employment	10		x	
2e/2f - Job Requirements and Functions	30			x
3a - Career Planning	15		x	x
3b - Considering Careers	15		x	x
4a - Acquiring and Maintaining a Job	15			x
4b - Inventory of Work Skills	15			x
5a - Attitudes Toward School and Careers	5	x		
5b - Attitudes Toward School and Careers	10		x	x
Critique 7-8/10-12	--			
Total testing minutes per grade level range		40	80	120

Instruments Which Collect Process Data:

Teacher's Questionnaire

Career Education Director's Questionnaire

Placement/Follow-Up Director's Questionnaire

School Coordinator's Questionnaire

Community Education Director's Questionnaire

Community Needs Survey

Instrument 1a - Knowledge of the Economic System (Grades 2 through 4)

Two different forms of this instrument were used during the post-tests. (These forms are labeled "Old" and "New" in the Appendix containing the instruments.) The "Old" form was used with students from the two Orange County elementary schools and the Pasadena Lakes Elementary School in Broward County. The "New" form was designed from an item analysis after it was determined that some of the items on the "Old" form were confusing for second graders, and that a "New" form would help simplify the overall data collection timing and procedure. The number of students per group are in parentheses.

Old Form

	Orange County				Broward County		
Item Numbers	LW2 (20)	RL2 (20)	LW3 (20)	RL3 (20)	PL2 (20)	P13 (20)	PL4 (20)
1)	3	6	3	6	3	2	8
2)	15	9	20	20	15	20	19
3)	13	7	11	2	20	20	17
4)	14	12	17	18	17	20	19
5)	18	19	18	20	19	19	20
6)	14	10	19	15	16	20	16
7)	7	11	7	20	8	7	10
8)	9	7	4	1	8	3	8
9)	16	17	15	18	19	17	20
10)	13	10	14	14	11	14	18
Average	12.2	10.8	12.8	13.4	13.6	14.2	15.5

New Form

	Broward County			Pinellas County						
Item Numbers	M2 (20)	M3 (20)	M4 (20)	CP2 (20)	P2 (20)	CP3 (20)	P3 (17)	CP4 (19)	P4 (18)
1)	[illegible]	1	4	1	0	5	4	12	4
2)	16	19	19	19	15	17	16	19	17
3)	9	12	7	17	15	6	14	13	14
4)	17	16	15	18	19	19	16	17	16
5)	4	4	14	8	3	12	2	15	9
6)	17	18	18	14	15	17	14	16	13
7)	11	9	15	17	14	17	16	16	13
8)	20	20	18	20	17	19	13	17	15
9)	13	4	17	16	17	19	15	19	16
10)	18	18	18	16	15	19	14	18	16
Average	12.6	12.1	1[illegible].5	14.6	13.0	15.0	12.4	16.2	13.3

Evidence of valid discrimination in the instrument can be shown by:

1. Grade level discrimination - the normal expectation is for scores to increase with students in higher grade levels.

2. Treatment discrimination - students exposed to career or economic programs and materials should produce higher scores than unexposed control groups.

Using the Old form, an item analysis was performed with the data from 60 second grade students, 60 third grade students and 20 fourth grade students. Only the "matching" Orange County students were used for the analysis of variance as follows:

Reliability - The internal consistency reliability of this instrument was 0.287 with all 10 items, using Kuder-Richardson formula 20(KR - 20). The item-test correlations ranged from 0.203 - 0.483, where a correlation of 0.33 was the minimum acceptable correlation. Four items had correlations of less than 0.33 originally. The students averaged 6.6 items correct with a standard deviation of 1.5 items. The highest KR-20 reliability was 0.473 which was obtained with five items remaining. (These were item numbers 2, 3, 4, 6, and 10.) The item-test correlations ranged from 0.537 - 0.606 which are all higher than the minimum acceptable level of 0.447. The students averaged 3.8 items correct with a standard deviation of 1.2 items. The correlation between the original and final scores was 0.783.

Validity - The validity of the test was examined by testing its ability to discriminate between students from career education and non-career education schools as well as from different grades. Table 1 contains the results for this instrument of an analysis of variance using second and third grade students from Lake Weston and Rock Lake Elementary Schools. The test was able to discriminate between students along both dimensions. There was no significant interaction between treatment and grade.

Table 1 #1a - Knowledge of the Economic System (Old Form)

Means

Factor T	Factor G			
1	1	20 OBS	M	3.526
			SD	1.219
1	2	20 OBS	M	4.050
			SD	0.826
2	1	20 OBS	M	2.400
			SD	1.188
2	2	20 OBS	M	3.450
			SD	1.050

Source	SS	DF	MS	F	P Less Than
Within Cells	87.437	75	1.166		
T	14.942	1	14.942	12.817	0.001
G	12.330	1	12.330	10.576	0.002
TG	1.367	1	1.367	1.173	0.282

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	0.432
G	
1	-0.393
TG	
1	0.132

Using the New form, an item analysis was performed with the data from 60 second grade, 57 third grade and 57 fourth grade students. Only the matching Pinellas County students were used for the analysis of variance, as follows:

Reliability - The internal consistency reliability of this test with all 10 items was 0.356 using KR-20. The correlations between the items and the total test score ranged from 0.217 to 0.532, where a correlation of 0.33 was the minimum acceptable correlation. Four items had correlations of less than 0.33 originally. The mean of the scores was 7.3 items correct with a standard deviation of 1.45. The highest KR-20 reliability was 0.466 which was achieved with 5 items. (These were item numbers 1, 3, 5, 7, and 9. Note: These items all have false responses as the correct answers.) The item-test correlations ranged between 0.515-0.605. The mean number correct using these five items was 2.9 items with a standard deviation of 1.2 items. The correlation between the original and final scores was 0.83.

Validity - The validity of the test was examined by determining whether it was able to discriminate between students of different grades as well as between students from career education schools and non-career education schools. Table 2 contains the results for this instrument of an analysis of variance for classes from Campbell Park and Pasadena Elementary Schools. Both treatment (T) and grade (C) are statistically significant.

Table 2 #1a - Knowledge of the Economic System (New Form)

Means

Factor T	Factor G			
1	1	20 OBS		
			M	2.950
			SD	0.945
1	2	20 OBS		
			M	3.350
			SD	1.137
1	3	19 OBS		
			M	3.947
			SD	1.129
2	1	20 OBS		
			M	2.450
			SD	1.191
2	2	17 OBS		
			M	3.059
			SD	0.748
2	3	18 OBS		
			M	3.294
			SD	0.772

Source	SS	DF	MS	F	P Less Than
Within Cells	109.868	107	1.027		
T	7.031	1	7.031	6.847	0.010
G	16.306	2	8.153	7.940	0.001
TG	0.601	2	0.300	0.293	0.747

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	0.241
G	
1	-0.475
2	0.029
TG	
1	0.009
2	-0.095

Instrument 1b - **Knowledge of the Economic System (Grades 7 and 8)**

Test subjects: 280 students from the Orange, Broward and Pinellas school districts, as follows:

	Orange						Broward				Pinellas			
Item Number	WA7 (20)	LI7 (20)	WA8 (20)	LI8 (20)	WA9 (20)	LI9 (20)	CL7 (20)	EV7 (20)	CL8 (20)	EV8 (20)	SE7 (20)	TY7 (20)	SE8 (20)	TY8 (20)
1)	15	11	16	9	18	10	10	11	13	9	10	16	15	12
2)	19	16	20	18	20	18	20	13	20	11	18	16	19	18
3)	14	13	20	14	20	14	18	17	17	16	18	17	18	18
4)	19	15	20	17	20	20	17	17	20	19	20	19	20	20
5)	9	10	8	11	14	8	4	6	17	9	10	4	12	9
6)	16	15	15	12	13	9	13	10	18	9	13	12	17	13
7)	13	13	9	14	15	10	16	12	17	13	9	11	4	16
8)	4	12	6	9	3	6	5	12	9	11	3	5	7	10
9)	19	18	18	16	18	15	16	8	18	15	17	14	19	10
10)	13	14	12	13	12	14	11	7	12	14	17	10	10	15
11)	15	12	12	14	19	14	12	14	18	14	18	15	14	16
12)	15	17	18	18	20	19	17	13	19	16	19	19	20	18
13)	15	15	17	19	17	16	17	15	18	18	20	19	19	18
14)	13	11	10	14	14	11	13	11	15	12	16	8	12	16
15)	18	15	16	13	20	18	19	17	18	16	17	16	16	19
16)	15	15	17	14	17	16	16	14	18	11	14	16	19	16
17)	17	14	18	19	18	16	17	17	18	13	18	17	18	18
18)	15	16	17	15	19	16	17	16	17	16	19	18	19	19
19)	15	15	12	14	17	15	13	10	20	12	14	14	14	10
20)	19	15	17	18	20	18	19	13	20	17	19	18	20	19
21)	6	5	4	7	2	2	6	6	1	8	8	3	3	7
22)	12	11	13	10	12	9	8	8	10	8	10	12	8	17
23)	6	12	8	7	6	4	4	6	3	9	7	8	6	8
24)	11	16	17	17	18	18	17	11	18	13	18	19	13	16
25)	17	13	19	16	19	15	12	16	19	10	14	16	18	18
Average	14.0	13.6	14.4	13.8	15.6	13.2	13.5	12.0	15.7	12.8	14.6	13.7	14.4	15.0

Reliability - The KR-20 reliability of this instrument was 0.531 with all 25 items. The item-test correlations ranged from -0.029 to 0.408. The minimum acceptable correlation was 0.20. Three items had correlations less than the minimum. The students obtained an average of 17.6 items correct with a standard deviation of 2.96 items. With 20 items remaining the test had a KR-20 reliability of 0.661. These were item numbers 1, 2, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 24, and 25. The item-test correlations ranged from 0.314 to 0.501 all of which were above the minimum acceptable correlations. The students obtained an average of 13.8 items correct, with a standard deviation of 2.8 items. The correlation between the original and final scores was 0.902. The reliability would be 0.796 if the length of the test were doubled and the correlations remained the same. Since the normal KR-20 reliabilities for standardized tests range between 0.80 and 0.90, 0.796 would be a satisfactory figure. Of the 20 items retained, 65% were supported by all school samples.

Validity - The validity of this test was examined by testing its ability to discriminate between students from career education and non-career education schools, as well as of different grades. Tables 3, 4 and 5 contain the results of these analyses for the Broward, Orange and Pinellas school districts respectively. In two of the three districts, the instrument was able to discriminate on the basis of treatment at statistically significant levels. In all three districts the instrument was able to discriminate between grade levels. In Broward County, a statistically significant interaction was obtained.

Table 3 1b - Knowledge of the Economic System (Broward)

Source	SS	DF	MS	F	P Less Than
Within Cells	560.699	76	7.378		
T	211.250	1	211.250	28.634	0.001
G	45.000	1	45.000	6.099	0.016
TG	33.800	1	33.800	4.581	0.036

Estimates Adjusted for 0 Covariates

Contrast		1
T		
	1	1.625
G		
	1	-0.750
TG		
	1	-0.650

Factor T	Factor G	OBS		
1	1	20 OBS		
			M	15.100
			SD	2.490
1	2	20 OBS		
			M	17.900
			SD	1.889
2	1	20 OBS		
			M	13.150
			SD	3.014
2	2	20 OBS		
			M	13.350
			SD	3.265

Table 4 1b - Knowledge of the Economic System (Orange)

Source	SS	DF	MS	F	P Less Than
Within Cells	749.757	112	6.694		
T	55.083	1	55.083	8.228	0.005
G	67.541	2	33.771	5.045	0.008
TG	18.634	2	9.317	1.392	0.253

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	0.676
G	
1	-0.940
2	0.046
TG	
1	-0.126
2	-0.413

Factor T	Factor G	OBS		
1	1	20 OBS		
			M	15.300
			SD	2.658
1	2	20 OBS		
			M	16.000
			SD	1.777
1	3	20 OBS		
			M	17.800
			SD	1.642
2	1	20 OBS		
			M	14.200
			SD	3.002
2	2	19 OBS		
			M	15.474
			SD	2.913
2	3	19 OBS		
			M	15.368
			SD	3.166

Table 5 1b - Knowledge of the Economic System (Pinellas)

Source	SS	DF	MS	F	P Less Than
Within Cells	512.999	76	6.750		
T	8.450	1	8.450	1.252	0.267
G	26.449	1	26.449	3.918	0.051
TG	0.050	1	0.050	0.007	0.932

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	0.325
G	
1	-0.575
TG	
1	0.025

Factor T	Factor G	OBS		
1	1	20 OBS		
			M	15.800
			SD	2.802
1	2	20 OBS		
			M	16.900
			SD	2.292
2	1	20 OBS		
			M	15.100
			SD	2.673
2	2	20 OBS		
			M	16.300
			SD	2.598

Instruments 1c and 1d - Knowledge of the Economic System (Grades 10 and 11)

Form 1c (40 items) was used with 80 Orange County students and 80 Broward County students. Form 1d (40 items) was used with 78 Pinellas County students, as follows:

	Orange				Broward				Pinellas			
Item Number	OR10 (20)	EV10 (20)	OR11 (20)	EV11 (20)	H10 (20)	MA10 (20)	H11 (20)	MA11 (20)	DU10 (20)	SP10 (20)	DU11 (18)	SP11 (20)
1)	3	7	4	7	4	7	4	7	19	16	15	18
2)	15	13	14	15	17	12	14	12	8	6	10	11
3)	4	6	11	10	4	7	5	6	15	12	11	15
4)	4	6	8	5	3	6	6	7	13	12	9	13
5)	15	13	17	17	16	18	16	17	16	18	16	17
6)	15	12	17	18	11	16	14	15	12	13	13	11
7)	13	7	11	6	7	5	9	9	14	16	11	14
8)	15	13	13	17	7	15	15	13	13	17	16	10
9)	12	11	11	14	8	10	10	8	20	17	18	17
10)	12	15	14	16	13	10	14	15	15	17	15	16
11)	9	8	11	8	7	9	4	5	4	8	12	9
12)	6	6	4	7	4	6	1	9	11	8	10	10
13)	10	11	15	12	13	15	14	11	4	8	9	14
14)	10	12	7	8	10	7	9	7	15	14	16	14
15)	14	13	14	14	15	17	16	13	5	13	11	9
16)	12	8	11	12	13	9	13	10	18	13	15	18
17)	19	9	12	11	11	12	12	15	14	18	13	15
18)	17	8	10	10	10	12	13	10	6	9	6	4
19)	13	13	15	13	11	11	11	14	11	14	13	11
20)	17	14	17	16	18	12	15	15	16	14	12	12
21)	15	12	15	14	10	15	12	14	8	5	6	9
22)	12	13	13	14	9	10	12	11	15	14	13	13
23)	18	17	20	17	14	15	14	18	5	5	7	9
24)	13	15	14	13	13	14	16	11	4	6	4	5
25)	10	7	10	9	7	10	8	10	15	14	11	12
26)	12	12	10	16	10	14	13	17	4	9	6	9
27)	15	14	16	15	9	17	14	16	12	9	13	16
28)	13	12	15	13	12	11	12	14	13	12	12	12
29)	14	12	10	17	13	12	15	14	12	12	17	14
30)	8	6	6	14	2	7	8	5	12	11	9	11
31)	13	7	14	11	11	8	9	11	15	12	11	14
32)	14	10	14	16	10	12	14	14	12	15	15	15
33)	14	13	14	12	8	8	11	12	7	6	8	13
34)	12	10	14	15	10	8	15	17	7	10	12	13
35)	9	7	6	7	6	9	10	7	5	10	10	6
36)	17	15	14	18	12	15	19	17	15	15	12	16
37)	16	14	12	11	13	14	15	17	14	12	13	15
38)	12	13	14	14	13	10	10	13	8	5	4	6
39)	10	7	10	9	8	10	15	10	11	14	11	11
40)	11	13	17	10	6	6	7	9	9	12	6	8
Average	24.6	21.7	24.6	25.1	19.8	22.0	23.2	23.8	22.6	23.6	22.6	24.2

Reliability - The KR-20 reliability of the #1c instrument was 0.591 with all 40 items. The item-test correlations ranged from -0.057 to 0.566 with 12 items being lower than the minimum acceptable correlation of 0.158. The students answered 22.8 items correctly on the average. The scores had a standard deviation of 4.58 items. The test achieved a KR-20 reliability of 0.716 with 25 items remaining. These were item numbers 2, 5, 6, 8-10, 15-17, 19-26, 28, 31-34, 36, 38, and 40. The item-test correlations of these 25 items ranged from 0.246 to 0.561 which means that all remaining items exceeded the minimum levels. The rejected items were examined for a second factor, but the maximum KR-20 reached was 0.223. With 25 items remaining, the students answered an average of 15.86 items correctly with a standard deviation of 4.2 items. The correlation between the final scores and the original scores was 0.922.

In order to examine the stability of the reliability coefficients obtained, the KR-20 reliability for the Broward subsamples was computed separately. The selection of items contained in the overall sample was supported 82.5% of the time by the Broward results. Of the 25 items retained in the overall analysis, the Broward analysis also retained 22 of the items. Of the items rejected by the overall analysis, the Broward analysis supported the rejection of 11 items as well.

Validity - Test validity was examined by testing its ability to discriminate between students from career education and non-career education schools, as well as students of different grades. Tables 6 and 7 contain the results of these tests from the Broward and Orange school districts respectively. In Orange County, a statistically significant result was obtained favoring the the students from Oak Ridge High School; however, there was no significant grade effect. In Broward County, there was a difference between the 10th and 11th graders that favored the 11th graders at the 0.09 level of significance. In neither district was a significant interaction effect obtained.

Table 6 1c - Knowledge of the Economic System (Broward)

Source	SS	DF	MS	F	P Less Than
Within Cells	1178.490	73	16.144		
T	1.274	1	1.274	0.079	0.780
G	47.367	1	47.367	2.934	0.091
TG	2.997	1	2.997	0.186	0.668

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	-0.152
G	
1	-0.777
TG	
1	0.198

Means

Factor T	Factor G	OBS		
1	1	17 OBS	M	14.941
			SD	3.976
1	2	20 OBS	M	16.100
			SD	3.307
2	1	20 OBS	M	14.850
			SD	4.368
2	2	20 OBS	M	16.800
			SD	4.234

Table 7 1c - Knowledge of the Economic System (Orange)

Source	SS	DF	MS	F	P Less Than
Within Cells	1378.225	75	18.376		
T	164.677	1	164.677	8.961	0.004
G	3.442	1	3.442	0.187	0.666
TG	1.450	1	1.450	0.079	0.780

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	-1.429
G	
1	-0.211
TG	
1	0.136

Factor T	Factor G	OBS		
1	1	19 OBS	M	17.158
			SD	4.845
1	2	20 OBS	M	17.850
			SD	4.380
2	1	20 OBS	M	14.550
			SD	4.084
2	2	20 OBS	M	14.700
			SD	3.799

An additional sample of 40 tenth and eleventh grade students was tested, using the 1c instrument (see Table 8). These students were drawn randomly from Evans High School in Orange County. Item analysis procedures were used to examine the resulting scores. The procedures were identical to those used to analyze the post-test data. This sample resulted in a KR-20 reliability of 0.78 with all 40 items. With 25 items selected based on the post-test data, the test had a KR-20 reliability of 0.80.

Using the same criteria for item selection, thirty items were selected for retention. With those thirty items the test had a KR-20 reliability of 0.85. Of the original 40 items 22 were found to be reliable in both the original and the new sample. Seven items were found to be unreliable in both samples. Altogether 72.5% of the selections were confirmed. Only three items which were used in the original sample were found to be unreliable in this new sample. However, eight items which were unreliable in the original sample were found to be reliable with the new and smaller sample. Altogether 27.5% of the selections made based on the original sample were not confirmed for this smaller test sample. The 25 items selected for continuing use were generally supported by this test. 22 or 88% were reliable for this test sample. Only three or 12% were found to be unreliable. The most encouraging fact is that the reliability for this sample was 0.80% This is a good figure and higher than was obtained in the original large sample for these same 25 items.

Table 8 1c - Knowledge of the Economic System (Orange - Re-test)

Source	SS	DF	MS	F	P Less Than
Within cells	1565.296	74	21.153		
T	13.128	1	13.128	0.621	0.433
G	76.418	1	76.418	3.613	0.061
TG	52.336	1	32.336	1.529	0.220

Estimates Adjusted for 0 Covariates

Contrast	1
C	
1	-0.385
T	
1	-0.990
CT	
1	-0.644

Means

Factor T	Factor G	OBS		
1	1	20 OBS		
			M	15.100
			SD	4.689
1	2	19 OBS		
			M	18.368
			SD	4.475
2	1	19 OBS		
			M	17.158
			SD	4.845
2	2	20 OBS		
			M	17.850
			SD	4.380

Reliability - The KR-20 reliability of the 1d test was 0.393 with all 40 items. The item-test correlations ranged from -0.102 to 0.482 where the cut-off value was 0.158. Fourteen items had correlations that were less than the minimum acceptable. The students obtained an average number correct of 23.8 items with a standard deviation of 3.7 items. With 20 items remaining, the test obtained a KR-20 reliability of 0.688. These were item numbers 3-10, 17, 19, 21, 22, 25-29, 36, 37, and 39. The remaining items had item-test correlations of 0.260 to 0.500 which were all above the minimum values. The students answered an average of 13.3 items correctly with a standard deviation of 3.4 items. The correlation between the original scores and the final scores was 0.833. The rejected items were examined for a possible second factor. With 12 of the original 20 rejected items remaining, the test had a KR-20 reliability of 0.452. The students answered an average of 5.1 items correctly with a standard deviation of 2.2 items. The correlation between these scores and the original scores was 0.287.

Validity - The validity of the test was examined by testing its ability to discriminate between students from career education and non-career education schools, as well as between 10th and 11th grade students. In the sample utilized here, neither grade nor school was significantly different. The data can be seen in Table 9.

Table 9 1d - Knowledge of the Economic System (Pinellas)

Source	SS	DF	MS	F	P Less Than
Within Cells	910.487	73	12.472		
T	0.327	1	0.327	0.026	0.872
G	0.407	1	0.407	0.033	0.857
TG	0.000	1	0.000	0.000	0.995

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	0.064
G	
1	0.073
TG	
1	-0.002

Factor T	G			
1	1	19 OBS		
			M	13.474
			SD	3.389
1	2	18 OBS		
			M	13.333
			SD	3.710
2	1	20 OBS		
			M	13.350
			SD	2.978
2	2	20 OBS		
			M	13.200
			SD	3.982

These tests make it possible to trace certain elements of economic knowledge through a cross section of grade levels. Table 10 contains examples from the areas of Productivity and the Market, Roles of Government, and Comparative Economics. While these examples demonstrate that the level of economic knowledge is certainly increasing from grade two to grade eleven, the absolute level of knowledge reached by grade eleven does not seem high. For instance, the questions in the Comparative Economics section indicate a slight decline in the knowledge of what communism means when the seventh and eighth grade scores are compared to those of the tenth and eleventh grade. The knowledge about the American economic system is not higher. When asked:

T F Private enterprise is a system where most natural resources are owned and controlled by the government.

57% of the tenth and eleventh graders tested gave a true response to this question.

Given the lack of formal or systematic instruction in either the theory or the practice of economics, this state of economic knowledge is not surprising. Considerable effort is being expended to begin to remedy this situation. As the goals and objectives of these efforts are more clearly defined, these tests will need to be revised to assess the progress that is made.

Table 10 Changes in Economic Knowledge

Grade	% Correct	Question
		Productivity and the Market
2-3	85	Milk is made in the supermarket.
7-8	47	Mass production results in higher costs of production.
10-11	70	A society based on a complex division of labor will usually have a higher gross national product than one based on self-sufficiency.
		The Role of Government
2-3	78	The government collects our money with a tax.
7-8	90	Tax is money collected by government from its citizens.
10-11	64	Taxes divert spending power from individuals and businesses to government.
		Comparative Economics
2-3	29	In communist countries most people own their own homes.
7-9	79	In communist countries the government owns the industries.
10-11	75	Communism is a system where government owns most of the productive resources.

Instrument 2a - Recalling Occupations (Grades 2 through 12)

Test subjects: 832 second through eleventh grade students from the Orange Broward and Pinellas school districts produced the following results: (The number of students in each group are the same as in forms 1a, 1c, 1d and 1e.)

Mean Class Averages

Grade Levels	Orange		Broward		Pinellas	
	LW	RL	PL	M	CP	P
2	12.8	4.8	11.5	6.5	9.9	11.1
3	12.9	9.5	16.2	6.7	16.3	14.6
4	16.9	7.3	24.5	16.4	23.3	13.2
	WA	LI	CL	EG	S	T
7	36.7	31.0	31.0	24.7	42.1	30.9
8	43.4	34.4	44.5	28.1	37.4	35.4
9	50.4	37.3				
	EV	OR	H	MC	DU	SP
10	43.2	40.5	31.5	35.1	47.5	35.0
11	42.8	43.0	39.1	37.0	43.5	38.0

Validity - This instrument has been able to discriminate between treatment and grade level groups a number of times (during the April and May field run and pilot test and during the October pre-tests). There was little difficulty in obtaining similar results in this trial (please see Table 11). Discrimination was obtained for grade level, treatment (career education versus non-career education school) and school district. The results for the Broward, Orange and Pinellas schools are contained in Tables 12, 13 and 14 respectively. The most interesting result was a leveling off of the scores among the tenth and eleventh grade samples. As Figure 1 illustrates, the rise in scores that occur between grades two through eight virtually ceases in high school. Another test of the validity of this instrument is in its ability to detect changes over time. This was tested by administering it to students from career education schools during October of 1975 and re-administering it to students from these same schools during this testing period. The data from these administrations is compared in Table 15. As can be seen, all groups of students from the second through the eighth grade showed positive changes. Twelve of these changes were statistically significant at the 0.05 level and one was significant at the 0.10 level. The data at the high school level is considerably less clear. In Broward County the changes were positive and statistically significant at the 0.10 or the 0.05 level. However, the pre-test scores were considerably lower than would be expected by examining the other counties' data or that from the lower grades. In the other two counties, only one significant change was recorded, but it was a significant increase in score.

Both types of testing tend to support the conclusion that the rise in knowledge of occupations tends to level off at the high school level. One possible interpretation is that students are not expanding their knowledge of occupational titles at the high school level. Another explanation is that the test has a ceiling effect. There is not a formal ceiling built into the test. The test form has room for 60 occupational titles, and the student may write additional titles on the back of the test form.

To determine the extent of ceiling effect, it would be desirable to administer the test to a sample of students who are given additional incentives to do well. If they do significantly better than the existing samples, this would indicate that the test is inappropriate for high school level students.

Table 11 — 2a - Occupational Titles

Source	SS	DF	MS	F	P Less Than
Within Cells	85864.813	787	109.104		
County	2242.165	2	1121.082	10.275	0.001
Treatment	7144.426	1	7144.426	65.483	0.001
Grade	116446.063	6	19407.676	177.883	0.001

Table 12 — 2a - Occupational Titles (Broward)

Career Education				Non-Career Education			
1	20 OBS			1	20 OBS		
		M	11.550			M	6.500
		SD	4.110			SD	3.285
2	20 OBS			2	20 OBS		
		M	16.250			M	6.700
		SD	7.304			SD	3.404
3	20 OBS			3	20 OBS		
		M	24.500			M	16.450
		SD	6.909			SD	7.633
4	20 OBS			4	20 OBS		
		M	31.000			M	24.750
		SD	9.722			SD	14.414
5	20 OBS			5	20 OBS		
		M	44.500			M	28.100
		SD	11.143			SD	15.957
6	20 OBS			6	20 OBS		
		M	31.550			M	35.100
		SD	16.178			SD	8.104
7	20 OBS			7	20 OBS		
		M	39.100			M	37.050
		SD	14.168			SD	11.623

Table 13 **2a - Occupational Titles (Orange)**

G	Career Education			G	Non-Career Education		
1	20 OBS			1	20 OBS		
		M	12.850			M	4.700
		SD	7.499			SD	2.658
2	20 OBS			2	20 OBS		
		M	12.950			M	9.500
		SD	6.605			SD	3.606
3	20 OBS			3	20 OBS		
		M	16.950			M	7.300
		SD	10.278			SD	4.001
4	20 OBS			4	20 OBS		
		M	36.600			M	30.600
		SD	14.177			SD	12.717
5	20 OBS			5	20 OBS		
		M	43.400			M	34.400
		SD	11.208			SD	12.955
6	18 OBS			6	19 OBS		
		M	40.056			M	43.200
		SD	10.344			SD	16.648
7	20 OBS			7	20 OBS		
		M	43.000			M	42.850
		SD	11.671			SD	12.176

Table 14 **2a - Occupational Titles (Pinellas)**

G	Career Education			G	Non-Career Education		
1	20 OBS			1	20 OBS		
		M	11.100			M	9.900
		SD	4.103			SD	3.582
2	16 OBS			2	20 OBS		
		M	14.563			M	16.350
		SD	8.181			SD	7.429
3	18 OBS			3	19 OBS		
		M	13.222			M	23.263
		SD	4.918			SD	8.265
4	20 OBS			4	20 OBS		
		M	42.100			M	30.900
		SD	11.858			SD	9.787
5	20 OBS			5	19 OBS		
		M	37.450			M	35.895
		SD	10.242			SD	10.273
6	20 OBS			6	20 OBS		
		M	47.550			M	35.050
		SD	11.839			SD	14.095
7	20 OBS			7	20 OBS		
		M	43.500			M	38.050
		SD	16.427			SD	12.717

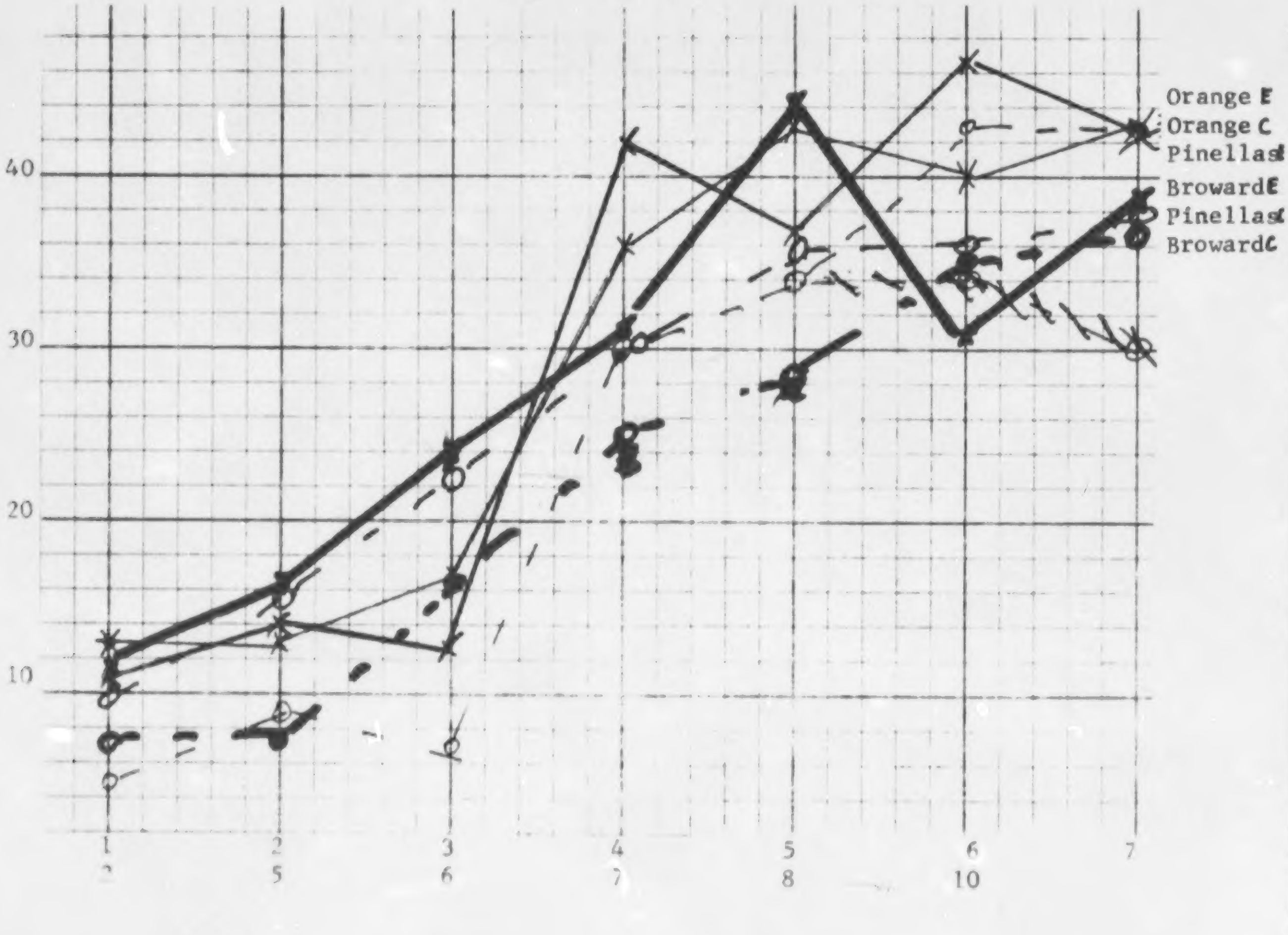
Table 15 2a - Occupational Titles - Pre-Test Data

Grade Level	Orange		Broward		Pinellas	
	Pre	Post	Pre	Post	Pre	Post
2	7.3	12.8*	6.4	11.5*	5.5	11.1*
3	10.0	12.9	11.6	16.2*	11.0	14.6**
4	10.9	16.9*	20.1	24.5*	11.6	13.2
7	20.8	36.7*	23.4	31.0*	26.0	42.1*
8	29.6	43.4*	30.6	44.5*	30.6	37.4*
10	38.9	43.2	24.0	31.5*	34.6	35.0
11	36.4	42.5**	32.0	39.1*	40.8	38.0

* P ‹ 0.05
** P ‹ 0.10

Figure 1

x = Career Education
o = Control



Instruments 2b and 2c - **Workers in Different Industries (Grades 2 through 8)**

Instruments 2b and 2c are identical except that grade 2 through 4 students were allowed 20 minutes on form 2b and grade 7 and 8 students were allowed 10 minutes.

Test subjects: 354 elementary students and 280 middle/junior high students completed the tests, as follows:

Orange

Item Number	LW2	RL2	LW3	RL3	LW4	RL4	WA7	LI7	WA8	LI8	WA9	LI9
1)	25	13	32	27	30	18	35	36	39	38	39	36
2)	4	4	7	8	22	3	23	19	17	21	24	27
3)	24	5	25	23	35	10	33	34	19	39	39	38
4)	25	14	25	22	26	12	36	23	32	35	32	33
5)	20	8	23	14	25	3	38	26	36	37	40	34
6)	18	5	21	17	27	9	36	36	38	36	40	38
7)	17	6	10	20	23	4	38	35	40	34	40	37
8)	14	21	22	19	29	8	37	38	37	35	40	38
9)	5	10	6	11	20	1	29	27	33	34	37	34
10)	20	14	22	14	27	24	37	36	37	37	40	37
11)	8	0	11	3	20	1	30	25	30	32	34	30
12)	15	5	20	5	26	7	33	37	36	36	39	36
13)	6	2	12	3	24	4	33	23	36	31	39	34
Average	15.5	8.2	18.1	14.3	25.7	8.0	33.7	30.4	34.6	34.2	37.1	34.8

Broward

Item Number	PL2	M2	PL3	M3	PL4	M4	CL7	EV7	CL8	EV8
1)	34	18	36	16	38	34	33	31	33	34
2)	12	2	21	4	20	20	13	11	21	17
3)	29	16	33	7	32	35	37	34	38	39
4)	22	9	30	22	27	28	32	30	35	36
5)	32	12	25	11	35	22	29	26	35	24
6)	23	20	24	15	39	27	36	31	38	31
7)	29	12	30	9	36	28	30	25	34	29
8)	34	5	32	16	40	24	34	29	38	35
9)	18	5	28	7	27	22	26	22	34	20
10)	34	28	34	27	40	36	37	28	38	31
11)	9	3	23	10	30	17	25	20	34	22
12)	29	17	36	14	34	25	33	24	38	26
13)	22	2	28	4	35	23	30	25	38	21
Average	25.1	11.5	29.2	12.5	33.3	26.2	30.4	25.8	34.9	28.1

Pinellas

Item Number	CP2	P2	CP3	P3	CP4	P4	S7	T7	S8	T8
1)	32	37	37	29	31	34	40	34	39	38
2)	10	20	15	12	25	22	25	36	19	32
3)	25	22	32	28	24	33	40	39	38	37
4)	19	26	30	20	28	32	33	30	31	32
5)	23	34	20	25	21	29	34	33	33	37
6)	24	25	28	22	29	31	36	37	38	36
7)	15	25	24	14	26	32	36	30	35	39
8)	29	27	21	28	28	26	36	34	35	39
9)	6	18	17	17	27	28	37	32	34	31
10)	33	27	34	28	33	32	38	30	37	31
11)	15	8	20	23	25	28	33	29	34	31
12)	25	14	25	16	25	32	35	26	28	30
13)	9	8	19	6	20	7	30	26	30	28
Average	20.4	22.4	24.8	20.6	26.3	28.1	34.8	32.0	33.1	33.9

Validity - The validity of the instrument was examined by testing its ability to discriminate between treatment and grade level groups. As Table 16 shows, there was no significant difference between the groups from the two counties; however, both grade and treatment groups could be successfully discriminated. Table 17 contains the means and standard deviations for the groups tested. As can be seen by examining both Table 18 and Figure 2, there seems to be a ceiling effect occurring for groups of students in the fourth and higher grades. This ceiling effect suppresses the ability of more able or knowledgeable students to demonstrate their superiority and thus reduces the ability of the test to discriminate for students above the fourth grade.

This test suffers from a difficulty in scoring for students in grades two and three. Students are required to write the names of occupations within different occupational groupings. Their spelling of occupational titles is sufficiently poor that there is frequently great difficulty in judging whether a response is correct or not. This difficulty is compounded by the necessity of placing an occupational title within one occupational grouping. In both cases the scorer is forced to make numerous choices. While not formally tested, there is a good possibility that interscorer reliability would be lower than desired. This test also requires hand scoring which would be a problem if it was used for large numbers of students. The EPIC procedure of using a single scorer to score all instruments is sufficient for current samples, but would be overworked, given larger samples.

Table 16 **2b/2c - Workers in Different Industries**

Source	SS	DF	MS	F	P Less Than
Within Cells	9108.441	373	24.419		
C	2.466	1	2.466	0.101	0.751
T	1035.854	1	1035.854	42.419	0.001
G	3992.588	4	998.147	40.875	0.001

Table 17 **2b/2c - Workers in Different Industries (Pinellas)**

Career Education						Control					
Factor						Factor					
C	T	G				C	T	G			
2	1	1	20 OBS			2	2	1	20 OBS		
				M	13.100					M	14.700
				SD	3.508					SD	4.624
2	1	2	20 OBS			2	2	2	17 OBS		
				M	16.350					M	16.176
				SD	4.209						6.405
2	1	3	19 OBS			2	2	3	17 OBS		
				M	18.421					M	20.471
				SD	3.892					SD	4.745
2	1	4	20 OBS			2	2	4	20 OBS		
				M	22.600					M	16.650
				SD	2.234					SD	7.714
2	1	5	20 OBS			2	2	5	20 OBS		
				M	21.650					M	18.200
				SD	2.231					SD	6.526

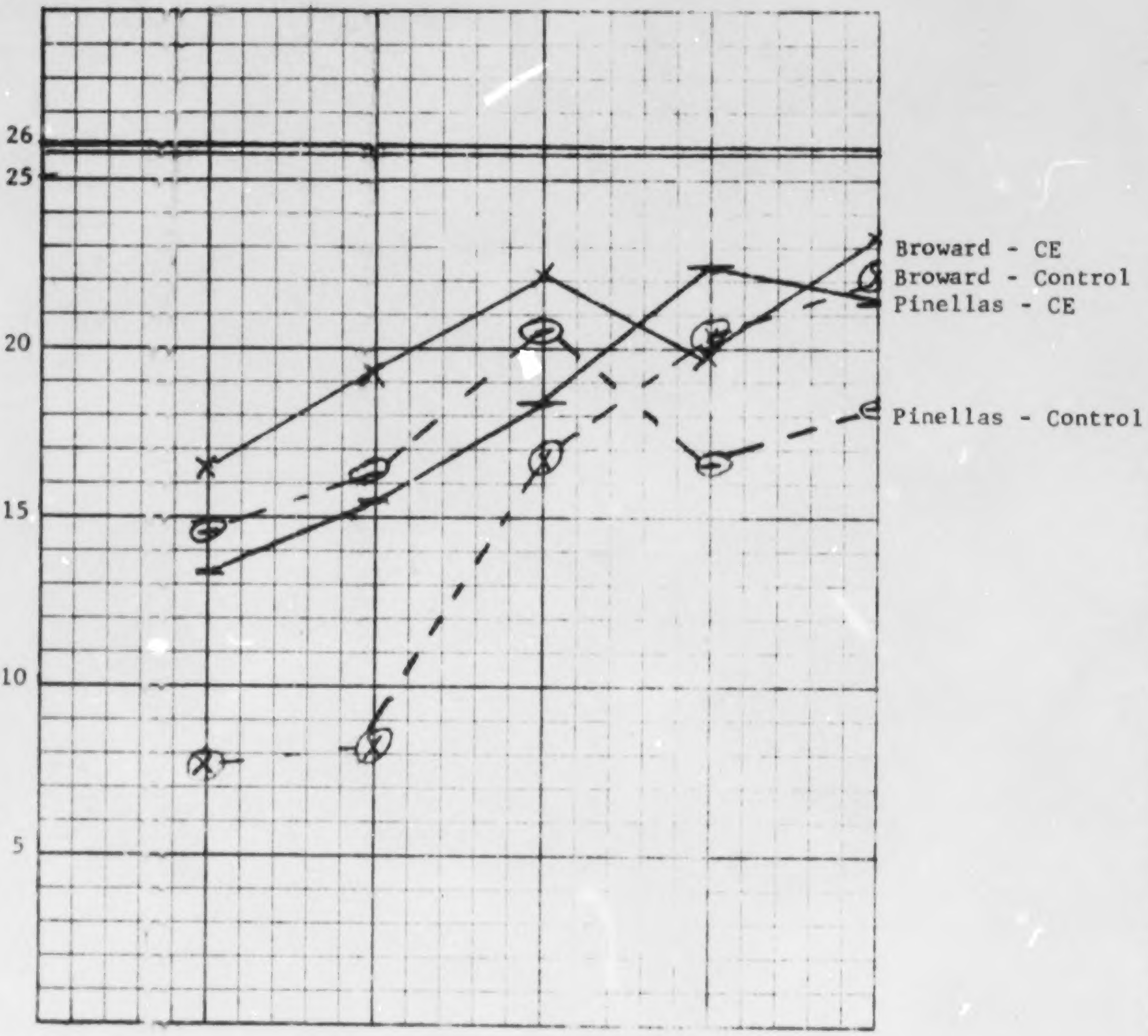
Table 18 **2b/2c - Workers in Different Industries (Broward)**

Career Education						Control					
Factor						Factor					
C	T	G				C	T	G			
1	1	1	20 OBS			1	2	1	20 OBS		
				M	16.500					M	7.950
				SD	3.517					SD	5.246
1	1	2	20 OBS			1	2	2	20 OBS		
				M	19.300					M	8.050
				SD	5.704					SD	5.443
1	1	3	20 OBS			1	2	3	20 OBS		
				M	22.300					M	16.950
				SD	2.003					SD	4.419
1	1	4	20 OBS			1	2	4	20 OBS		
				M	19.900					M	20.150
				SD	6.859					SD	5.194
1	1	5	20 OBS			1	2	5	20 OBS		
				M	23.200					M	22.250
				SD	5.634					SD	4.089

Figure 2 2b/2c - **Workers in Different Industries**

x = Broward
— = Pinellas

–– = Career Education
--o-- = Control



Instrument 2d - Preparation for Employment (Grades 7 and 8)

Test subjects: 280 students from the Orange, Broward and Pinellas school districts, as follows:

	Orange						Broward				Pinellas			
Item Number	WA7 (20)	LI7 (20)	WA8 (20)	LI8 (20)	WA9 (20)	LI9 (20)	CL7 (20)	EV7 (20)	CL8 (20)	EV8 (20)	SE7 (20)	TY7 (20)	SE8 (20)	TY8 (20)
1)	12	5	12	12	15	10	5	8	13	10	10	12	13	11
2)	7	11	12	11	11	14	5	3	14	15	16	15	10	13
3)	6	8	12	11	12	9	5	1	13	9	15	14	12	15
4)	5	8	13	15	18	12	9	11	10	6	11	15	11	13
5)	11	14	5	10	16	9	15	12	17	9	13	11	14	8
6)	8	5	8	13	15	13	12	13	13	11	15	12	9	12
7)	8	13	12	13	9	11	12	9	14	12	12	10	12	11
8)	13	11	10	6	13	11	7	6	14	13	15	15	14	13
9)	12	11	15	10	13	14	12	9	5	13	10	12	15	12
10)	10	8	13	12	12	11	9	3	12	6	13	13	12	11
11)	9	9	13	10	13	15	11	6	8	6	9	12	12	14
12)	9	8	14	10	14	13	8	3	15	6	9	13	14	15
13)	14	6	12	13	14	15	11	9	11	9	8	15	15	14
14)	9	14	11	13	16	13	13	14	13	9	12	12	14	16
15)	14	12	15	12	14	13	10	0	13	12	12	7	11	11
16)	10	8	14	10	13	10	7	12	9	6	12	12	13	7
17)	11	6	16	7	15	13	2	10	14	12	9	13	14	15
18)	13	10	11	10	11	13	13	10	13	8	14	6	10	16
19)	15	11	15	9	13	12	13	12	9	9	13	11	11	12
20)	7	7	13	13	14	14	11	10	16	11	8	6	13	6
Average	10.1	9.2	12.3	11.0	13.5	12.2	9.5	8.0	12.3	9.6	11.8	11.8	12.4	12.2

Validity - This instrument's validity was examined by testing its ability to discriminate between treatment and grade level groups using the 240 seventh and eighth grade students whose means are shown in Table 19. As can be seen from Table 20, the instrument detected statistically significant differences between counties, treatment, and grade level groups. There was one significant interaction which resulted from the fact that the treatment differences evident in Broward and Orange Counties were not evident in Pinellas County. Grade level differences were evident in all three counties. Data was also collected from ninth grade students in Orange County. The career education students scored a mean of 13.5 items correct while control students scored 12.2 items correct. The scores for these students ranged from 9-18 items correct. This data suggests that this instrument could be used for ninth grade students. The failure of any of these students to obtain a perfect score also suggests the possiblity of using this instrument at tenth grade and higher levels.

Table 19 **2d - Preparation for Employment**

Source	SS	DF	MS	F	P Less Than
Within Cells	1787.903	227	7.876		
C	199.123	2	99.562	12.641	0.001
T	73.819	1	73.819	9.372	0.002
G	142.614	1	142.614	18.107	0.001

Table 20 **2d - Preparation for Employment**

FACTOR
C T G

Orange - Experimental

1 1 1 20 OBS
M 10.150
SD 2.852

1 1 2 20 OBS
M 12.300
SD 2.557

Orange - Control

1 2 1 20 OBS
M 9.250
SD 2,807

1 2 2 20 OBS
M 11.000
SD 2.176

Broward - Experimental

2 1 1 20 OBS
M 10.000
SD 3.479

2 1 2 20 OBS
M 12.300
SD 2.886

Broward - Control

2 2 1 20 OBS
M 8.050
SD 4.161

Pinellas - Experimental

3 1 1 20 OBS
M 11.800
SD 2.484

3 1 2 20 OBS
M 12.450
SD 1.731

Pinellas - Control

3 2 1 20 OBS
M 11.800
SD 2.764

3 2 2 19 OBS
M 12.684
SD 2.237

Instruments #2e and #2f - Job Requirements and Functions (Grades 10 through 12)

Form #2e (104 items) was used with 80 Orange County students and 78 Pinellas County students; form #2f (104 items) was used with 80 Broward County students, as follows:

Reliability - The KR-20 of the #2e instrument with all 104 items is 0.683 (with 52 Orange County students and 78 Pinellas County students). The item-test correlations range from -0.217 to 0.482. Twenty-three items are below the minimum item-test correlation. The students averaged 62.6 items correct with a standard deviation of 8.2 items. A KR-20 reliability of 0.837 was obtained with 60 items remaining. These were item numbers 2, 3, 6-9, 11, 12, 14, 16, 18-23, 26, 31-33, 35, 44, 48-52, 54, 57-59, 62-65, 68-70, 72, 74-77, 79, 80, 84, 86-90, 92-94, 96-98, 100, 102 and 104. The item-test correlations ranged from 0.201 to 0.526. All of these correlations are substantially above the cutoff level. Students averaged 41.25 items correct with a standard deviation of 7.8 items. The correlation between the final scores and the original scores was 0.896.

Validity - Test validity was examined through a test of the instrument's ability to discriminate between treatment and grade level groups. Table 21 contains the results for the Orange County tenth grade groups, while Table 22 contains the results for the Pinellas County tenth and eleventh graders. In one case out of the two there is a significant effect for treatment. In the case of two grade levels, a significant discrimination is possible at the 0.10 level of significance.

Table 21 2e - Job Requirements and Functions (Orange)

Source	SS	DF	MS	F	P Less Than
Within Cells	1949.567	35	55.702		
T	559.999	1	559.999	10.053	0.003

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	3.892

Means

Factor			
T			
1	19 OBS		
		M	44.895
		SD	6.847
2	18 OBS		
		M	37.111
		SD	8.065

Table 22 2e - Job Requirements and Functions (Pinellas)

Source	SS	DF	MS	F	P Less Than
Within Cells	4488.465	70	64.121		
T	139.439	1	139.439	2.175	0.145
G	242.931	1	242.931	3.789	0.056
TG	12.800	1	12.800	0.200	0.656

Estimates Adjusted for 0 Covariates

Contrast	1
T	1.231
G	
1	1.848
TG	
1	0.419

Means

Factor T	Factor G			
1	1	20 OBS		
			M	45.000
			SD	8.118
1	2	15 OBS		
			M	40.467
			SD	7.453
2	1	20 OBS		
			M	41.700
			SD	6.602
2	2	19 OBS		
			M	38.842
			SD	9.518

An additional sample of 40 tenth and eleventh graders were tested using the 2e instrument at Evans High School. (See Table 23.) A KR-20 reliability of 0.73 was obtained for the overall 104 items. The reliability for the 60 items selected (based on the post-test data) was 0.83, which is the same as was obtained with that sample. An item analysis was run with the same criteria as for the original data, but using this new data, 62 items were selected for retention. With these 62 items, the KR-20 reliability was 0.88. Forty-six of the original 104 items selected for retention originally were confirmed by this sample. Twenty-eight items which were found unreliable in the original sample were also found unreliable in this sample. Overall, 71.2% of the original selections were confirmed by the test sample. In the test sample, 14 items originally retained were excluded while 16 items originally found unreliable were retained. Overall, 28.8% of the original selections were not confirmed in this test. Of the 60 items selected for continuing use, 76.7% were found reliable in this test sample. The reliability of these 60 items was 0.83 which is as high as with the original sample. The reliability is very satisfactory.

Table 23 2e - Job Requirements and Functions (Orange Re-Test)

Source	SS	DF	MS	F	P Less Than
Within Cells	4095.365	69	59.353		
T	39.709	1	39.709	0.669	0.416
G	147.662	1	147.662	2.488	0.119
CT	101.632	1	101.632	1.712	0.285

Means

Factor				
T	G			
1	1	19 OBS		
			M	41.526
			SD	7.168
1	2	17 OBS		
			M	43.765
			SD	8.736
2	1	19 OBS		
			M	44.895
			SD	6.847
2	2	18 OBS		
			M	43.675
			SD	8.065

Reliability - With all 104 items the KR-20 reliability of the #2f instrument was 0.640 (with 80 Broward County students). The item-test correlations ranged from -0.308 to 0.476 with 34 item-test correlations below the cutoff value. The students averaged 60.2 items correct with a standard deviation of 7.7 items. With 60 items remaining, the KR-20 reliability was 0.827. These were item numbers: 1, 3, 4, 7, 8, 10, 11, 13, 15-17, 19, 21-23, 29, 30, 32, 35, 38, 39, 42-45, 50, 51, 54, 56-58, 61-63, 65, 66, 68, 71-78, 80-82, 86, 91-100, and 102. The item-test correlations ranged from 0.192 to 0.563. All item-test correlations were well above the cutoff value. The students achieved an average of 33.7 items correct with a standard deviation of 8.2 items. The correlation between the final scores and the original scores was 0.898. In order to determine the stability of the item selection, the Pinellas subsample was subject to separate item analysis. Of the 104 items in the total test, 85 items were found to have the same response made in the total sample, as well as the Pinellas subsample. This is 81.7% of the items. Fifty-seven items were retained in both the overall analysis and the subsamples analysis. This is 95% of the total items retained. Twenty-eight of the items rejected in the overall analysis were also rejected in the Pinellas analysis. This is 63.6% of the total items rejected.

Validity - The validity of the test was examined by testing its ability to discriminate between treatment and grade level groups. The results for the test are contained in Table 24 Significant results favoring the non-career education group were found.

Table 24 2f - Job Requirements and Functions (Broward)

Source	SS	DF	MS	F	P Less Than
Within Cells	4815.246	76	63.358		
T	400.512	1	400.512	6.321	0.014
G	2.112	1	2.112	0.033	0.856
TG	165.310	1	165.310	2.609	0.110

Estimates Adjusted for 0 Covariates

Contrast	1
T	
1	-2.237
G	
1	0.162
TG	
1	1.437

Factor T	Factor G			
1	1	20 OBS		
			M	33.050
			SD	8.501
1	2	20 OBS		
			M	29.850
			SD	8.475
2	1	20 OBS		
			M	34.650
			SD	6.792
2	2	20 OBS		
			M	37.200
			SD	7.951

Instrument 3a - Career Planning (Grades 7 through 12)

Test subjects: 520 students in grades seven through eleven from Broward, Orange and Pinellas Counties produced results for the four parts of the instrument, as follows:

Part a - Knowledge About Career Planning
Part b - Career Planning Activities Checklist
Part c - Talking About Careers
Part d - Career Decision-Making

Part a - Knowledge About Career Planning

The mean averages of student group scores on ten true/false items are as follows:

Grade Level	Orange		Broward		Pinellas	
	WA	LI	CL	EG	SE	TY
7	7.1	5.5	6.3	6.2	7.2	6.6
8	7.3	5.5	7.6	6.5	7.2	7.4
9	8.5	6.9				
	EV	OR	HH	MC	DU	SP
10	8.0	8.1	6.2	6.7	8.0	7.6
11	6.1	7.9	6.7	7.5	7.6	7.6

Part b - Career Planning Activities Checklist

The mean averages of student group scores in the performance of 20 "career planning" activities are as follows:

Grade Level	Orange		Broward		Pinellas	
	WA	LI	CL	EG	SE	TY
7	8.1	10.2	9.6	12.2	9.9	10.4
8	9.2	9.9	9.7	11.0	10.6	11.5
9	10.9	9.3				
	EV	OR	HH	MC	DU	SP
10	10.8	11.8	12.6	10.9	12.0	12.4
11	12.5	11.0	13.3	12.3	12.0	11.9

Part c - Talking About Careers

The mean averages of student group scores in the performance of 20 "talking about careers" activities, are as follows:

Grade	Orange		Broward		Pinellas	
Level	WA	LI	CL	EG	SE	TY
7	8.0	8.6	7.1	10.0	6.2	7.9
8	6.8	6.5	6.1	8.6	7.0	7.9
9	8.0	7.7				
	EV	OR	HH	MC	DU	SP
10	8.0	8.1	9.8	9.1	10.1	8.3
11	10.6	8.6	11.7	9.0	9.9	10.0

Part d - Career Decision-Making

The mean averages of student group scores in the performance of 38 "career decision-making" activities, are as follows:

Grade	Orange		Broward		Pinellas	
Level	WA	LI	CL	EG	SE	TY
7	11.3	14.4	15.1	15.5	11.8	13.0
8	11.0	9.8	13.2	15.7	11.5	11.9
9	11.8	11.9				
	EV	OR	HH	MC	DU	SP
10	13.8	12.4	18.1	13.4	14.5	14.0
11	15.2	11.0	16.1	12.6	13.0	13.4

Analysis - Table 25 presents the analysis for each of the four parts of this instrument, as well as the overall mean scores. Only in Part a - Knowledge of Career Planning, does the test reveal any significant differences between the career education and the control groups. In each of the other parts of the instrument, the control groups show higher levels of career related activities than do the career education students tested. It is important to stress that none of the differences on the last three sections of the test approach statistical significance.

This data suggests that the career education programs at the junior high and high school level are not resulting in differences in career planning activities. Since other instruments suggest that there are differences in knowledge about career related subjects, it would be important to also encourage the activities necessary for career decisions.

While there is no difference between career education and control students on parts b and c, there is a distinct tendency for tenth and eleventh grade students to show higher levels of career planning activities than do students in grades seven through nine. This supports the validity of these parts.

Table 25 3a - Career Planning

Part	Mean Career Education	Mean Control	F-Ratio Career Education	Probability Ratio Control
a	7.3538	6.7769	3.8017	0.0601
b	10.8538	11.1923	0.4518	0.5145
c	8.2923	8.6385	0.3889	0.5454
d	13.1769	13.4461	0.1292	0.7225

Instrument 3b - Considering Careers (Grades 7 through 12)

Test subjects: 520 students from the seventh through eleventh grades in Broward, Orange and Pinellas Counties produced results in three parts, as follows:

Part a

The mean averages of student group scores of "no interest" in the 130 EPIC occupations are as follows:

Grade Level	Orange		Broward		Pinellas	
	WA	LI	CL	EG	SE	TY
7	99.7	85.0	95.4	82.1	90.4	100.9
8	111.4	98.0	103.3	92.1	89.5	97.8
9	110.3	93.2				
	EV	OR	HH	MC	DU	SP
10	98.6	110.1	86.8	96.4	97.9	98.7
11		99.0	89.9	97.7	90.7	84.9

Part b

The mean averages of student group scores of "interest" in 130 EPIC occupations are as follows:

Grade Level	Orange		Broward		Pinellas	
	WA	LI	CL	EG	SE	TY
7	23.1	29.0	20.1	25.5	17.2	19.0
8	8.5	20.2	17.0	16.4	20.1	20.2
9	7.8	23.3				
	EV	OR	HH	MC	DU	SP
10	21.0	16.5	22.4	18.4	20.6	23.2
11	28.6	25.2	14.1	18.6	16.6	30.0

Part c

The mean averages of student group scores when indicating "choice of career" related to "courses taken to prepare for career" related to "highest level of education and/or training required for career" are as follows:

	Grade Level	Orange		Broward		Pinellas	
		WA	LI	CL	EG	SE	TY
Career Choices:	7	18	16	14	14	18	17
	8	17	16	11	15	18	20
	9	17	16				
Courses Taken:	7	6	5	4	8	13	10
	8	7	8	4	9	15	15
	9	3	6				
Highest Level:	7	3	8	7	7	9	14
	8	4	8	10	6	10	14
	9	11	10				
		EV	OR	HH	MC	DU	SP
Career Choices:	10	15	18	11	15	16	16
	11	12	19	16	16	17	15
Courses Taken:	10	10	15	8	10	11	15
	11	9	16	12	15	13	15
Highest Level:	10	9	13	8	13	11	10
	11	8	14	15	11	12	13

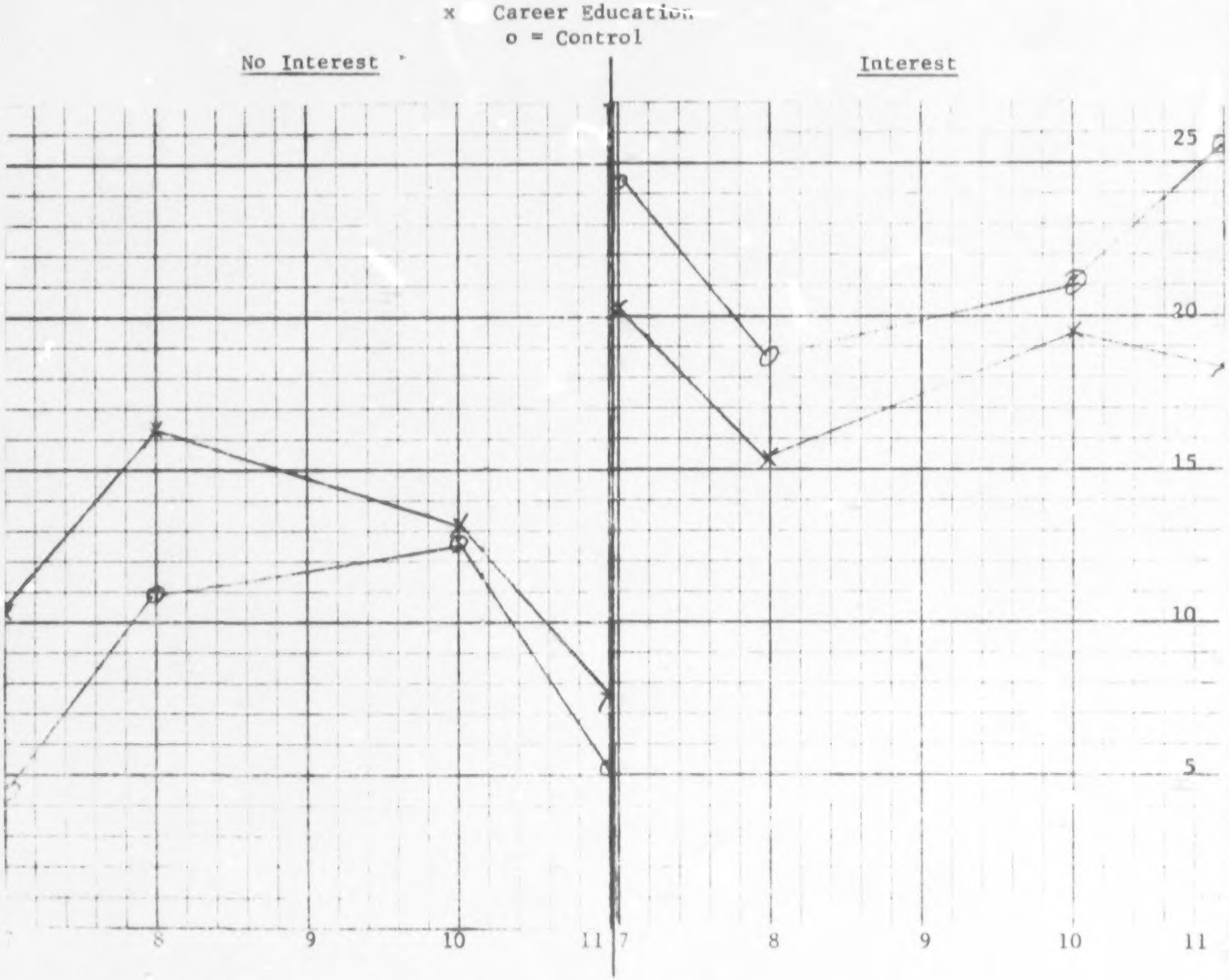
Analysis - The statistical analysis of the results are presented in Table 26. The mean scores for the career education and the control groups are plotted by grade for Parts a and b in Figure 3. The only measure that shows a statistically significant difference is the interest score. Career education classes have lower numbers of occupations in which they express interest. This generally supports the expected pattern since increased knowledge about careers should lead the students to have narrowed down their career choices by the time that they reach the high school level. The Part a score, while not significant, is also in the same direction. Career education students had fewer interests in occupations than did the control students. These results were as strong at the middle school level as in the high schools, indicating that the career programs, even at the middle schools, lead students to narrow their career choices earlier in life.

The responses to Part c are interesting even though there are no significant differences between groups. Of the twenty students in each group tested, an average of ten (or 50%) reported that they had taken courses which related to their career choices. This is about 63% of those that reported a career choice.

Table 26 **3b - Considering Careers**

Part	Mean Career Education	Mean Control	F-Ratio Career Education	Probability Ratio Control
a	98.0307	93.3307	2.5107	0.1227
b	17.6308	22.5692	6.7166	0.0153
c-1	16.1538	15.5385	0.4892	0.5024
2	9.7692	10.3846	0.1454	0.7075
3	9.7692	10.0769	0.0614	0.8016

Figure 3 **3b - Considering Careers**



Instrument 4a - Acquiring and Maintaining a Job (Grades 10 through 12)

This instrument is divided into four parts, as follows:

Part a - Job Expectations (Satisfaction)
Part b - Employee Work Habits
Part c - Employee Traits and Mannerisms
Part d - Interviewing for a Job

In each of the four parts, students selected ten items from a group of twenty (by a process of forced-choice selection). The number of students in each student group who selected an item was multiplied by the number of EPIC members (out of twenty-four) who also chose the item as one of the ten selected. The products of the student choices and EPIC multipliers are as follows:

	Orange				Broward				Pinellas			
	OR10 (20)	EV10 (20)	OR11 (20)	EV11 (20)	HH10 (20)	MC10 (20)	HH11 (20)	MC11 (20)	DU10 (20)	SP10 (20)	DU11 (19)	SP11 (20)
Part a	132.2	128.1	128.6	120.9	128.4	125.7	121.7	134.6	131.9	128.8	128.1	130.9
Part b	134.0	122.2	136.2	132.6	123.4	126.6	139.1	148.0	138.7	139.0	130.6	136.2
Part c	130.8	125.2	134.7	125.3	118.9	133.8	130.8	122.9	132.9	122.9	125.8	124.0
Part d	138.2	134.2	129.9	132.2	134.2	138.0	118.3	137.7	134.0	136.2	135.1	134.6

Instrument 4b - Inventory of Work Skills (Grades 10 through 12)

The following are tabulations of work skills which student groups indicated they had learned on a job, in one of the school courses listed below, at home, or at some other place. (240 tenth and eleventh graders.)

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	70	43	41	35	29	63	42	12	163	428	171	169	1040
OR10	144	130	67	56	39	75	17	9	117	510	277	200	1131
EV11	192	138	51	77	55	91	72	17	165	666	331	190	1379
OR11	47	58	43	32	39	60	40	8	88	368	202	96	713
HH10	279	53	34	33	16	14	36	7	90	283	228	87	877
MC10	47	73	67	68	8	41	30	10	48	345	220	125	737
HH11	70	52	58	57	18	44	58	10	105	402	270	163	905
MC11	89	56	32	42	10	53	11	5	75	284	253	64	690
DU10	397	113	93	25	8	28	57	10	69	403	179	104	1083
SP10	107	119	44	31	16	41	40	13	82	386	286	122	901
DU11	349	182	75	50	26	90	49	12	103	587	241	233	1410
SP11	194	138	28	18	27	29	57	13	117	427	289	108	1018
Total	1985	1155	633	524	291	629	509	126	1222	5089	3149	1661	11884

On the following pages, the above totals are broken down within each of the 13 occupational categories.

CON.	246	191	27	3	3	5	33	1	94	357	498	132	1233
MAN.	172	168	19	6	5	13	95	4	78	388	196	83	839
R/W	307	99	60	9	8	1	8	2	46	233	117	112	769
B/O/A	130	197	86	101	28	4	2	1	106	525	178	85	918
B/I/S	114	86	155	8	24	2	2	5	55	337	288	109	848
MC	81	70	13	243	51	12	69	4	164	626	155	114	976
E/A	73	32	7	69	11	7	256	69	153	604	235	139	1051
H/R/PS	144	119	2	1	2	11	7	9	46	198	637	135	1113
G/U/PS	124	36	23	35	53	22	16	7	163	355	251	209	939
HEALTH	194	71	29	35	24	91	20	22	131	423	325	180	1122
S/T	116	38	116	12	77	306	11	1	89	680	64	77	967
F/R/NE	91	16	5	2	4	135	3	1	83	249	256	133	729
TRANS.	151	43	45	0	4	11	6	0	39	148	245	154	698
Total	1943	1166	587	524	294	680	528	126	1247	5123	3445	1662	12202

CONSTRUCTION

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	19	15	6				4		12	37	37	9	102
OR10	37	38	6		2	2				48	50	19	154
EV11	19	25	1				5		4	35	38	12	104
OR11	1	2					2			4	39	3	47
HH10	6	14		2			4	1	5	26	43	4	79
MC10	10	6	1						2	9	24	8	51
HH11	4	10	5		1		9		10	35	33	4	76
MC11	8	7	3				1		8	19	41	9	77
DU10	59	11					3		1	15	25	18	117
SP10	24	11	1			2	2		4	20	39	11	34
DU11	29	35	1	1					39	76	68	14	187
SP11	30	17	3			1	3		9	33	61	21	145
Total	246	191	27	3	3	5	33	1	94	357	498	132	1233

MANUFACTURING

EV10	6	3	1		1	1	6		3	15	25	5	51
OR10	31	10	6			5	2			23	4	7	65
EV11	15	21	1	3	1	3	17	2	11	59	17	7	98
OR11	1	4					7		2	13	16	2	32
HH10	5	5	3		2	2	11		5	28	13	12	58
MC10	9	19	3				4		5	31	20	2	62
HH11		10					12		2	24	12	7	43
MC11	10	14					6		6	26	16	3	55
DU10	49	19	3	1	1	1	11		6	42	9	7	107
SP10	11	9	2	2		1	9	1	9	[illegible]	23	4	71
DU11	21	37					5		6	48	19	18	106
SP11	14	17					5	1	23	46	22	9	91
Total	172	168	19	6	5	13	95	4	78	388	196	83	839

RETAILING/WHOLESALING

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	8		5		1		1		7	14	19	15	56
OR10	29	8	2		1					11	4	8	52
EV11	33	11	7	3	2	1	1	1	2	28	9	15	85
OR11	24	1	1		2					4	10	4	42
HH10	14	6	4	3	1		4	1	5	24	12	8	58
MC10	12	2	11				1		2	16	9	1	38
HH11	22		2						3	5	14	11	52
MC11	36	3	1		1				1	6	10	1	53
DU10	30	13	10	1					7	31		15	76
SP10	14	19	7	2			1		5	34	8	6	62
DU11	55	15	10						3	28	11	18	112
SP11	30	21							11	32	11	10	83
Total	307	99	60	9	8	1	8	2	46	233	117	112	769

BUSINESS/OFFICE/ACCOUNTING

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	6	6	5	15	6				11	43	21	6	76
OR10	2	14	2	11	4	2				33	11	5	51
EV11	17	12	12	15	11		1		10	61	22	12	112
OR11	1	19	7	8	2	1			3	40	12	1	54
HH10	19	3		11	1		1		8	24	16	4	63
MC10	5	11	11	4					6	32	3	4	44
HH11	2	3	6	12	1				13	35	13	9	59
MC11	6	14	8	3	1				6	32	11	1	50
DU10	26	25	10	5					10	50	7	10	93
SP10	7	30	9	8	1				11	59	17	11	94
DU11	26	27	15	7	1				10	60	30	16	132
SP11	13	33	1	2		1		1	18	56	15	6	90
Total	130	197	86	101	28	4	2	1	106	525	178	85	918

BANKING/INSURANCE/REAL ESTATE/SECURITIES

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	10	2	1						6	9	29	5	53
OR10		7	12	1	4					24	14	8	46
EV11	11	11	7	4	1	1		1	8	33	39	21	104
OR11	6	4	11		14					29	18	6	59
HH10	20		15		2		1		8	26	7	4	57
MC10	1	5	18						1	24	14	1	40
HH11	2		24		1				7	32	19	8	61
MC11	6	3	9						6	18	16	2	42
DU10	28	4	5					3	5	17	19	17	81
SP10	11	19	13						2	34	23	12	80
DU11	15	15	31	2					10	58	52	15	140
SP11	4	16	9	1	2	1	1	1	2	33	38	10	85
Total	114	86	155	8	24	2	2	5	55	337	288	109	848

MASS COMMUNICATIONS

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	1	2	1	13	7	1	8		30	62	21	10	94
OR10	2	14		30	13		1		11	69	9	14	94
EV11	6	12	3	30	11	7	13		26	102	16	9	133
OR11	1	4		4	1		3		27	39	13	8	61
HH10	28	1	1	9	4	2	8	2	10	37	8	6	79
MC10	1	2	1	53					6	62	9	1	73
HH11	2	1		22	1		4		7	35	11	21	69
MC11	1	1		30					8	39	7	3	50
DU10	15	9	5	12	3		6	2	5	42	5	6	68
SP10	4	7	1	10			2		8	28	24	17	73
DU11	18	7	1	26	5	2	9		8	58	20	14	110
SP11	2	10		4	6		15		18	53	12	5	72
Total	81	70	13	243	51	12	69	4	164	626	155	114	976

ENTERTAINMENT/ARTS

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	1	5		3	5	1	17	9	30	70	32	13	116
OR10		2		8	1		10	5	13	39	15	19	73
EV11	10	3		5	4	5	30	7	21	75	29	22	136
OR11		2		9		1	20	7	14	53	13	11	77
HH10	29		6	6			7	3	12	34	19	7	89
MC10		6	1	5	1		18	9	10	50	16	8	74
HH11	6	2		10			26	5	8	51	24	18	99
MC11		1		3			4	3	9	20	14	6	40
DU10	12	1		4			34	4	4	47	11	7	77
SP10	3	8		3			20	6	11	48	20	8	79
DU11	11			9			30	5	11	55	24	15	105
SP11	1	2		4			40	6	10	62	18	5	86
Total	73	32	7	69	11	7	256	69	153	604	235	139	1051

HOTEL/RESTAURANT/PERSONAL SERVICES

EV10	8	6								6	68	17	99
OR10		12						1	2	15	68	21	104
EV11	20	11				1		2	2	16	67	15	118
OR11	1	14				4	1		6	25	45	4	75
HH10	20	3							4	7	35	7	69
MC10	5	13				1	4	1	2	21	48	13	87
HH11	6	13	1	1	1			1	11	28	55	20	109
MC11	5	3							5	8	48	4	65
DU10	19	15							1	16	49	2	86
SP10	9	9							5	14	45	6	74
DU11	29	19	1		1	1	1	3	3	29	72	16	146
SP11	22	1				4	2	1	5	13	37	9	81
Total	144	119	2	1	2	11	7	9	46	198	637	135	1113

GOVERNMENT/UTILITIES/PUBLIC SERVICES

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	1		3	1	3	1	3	1	29	41	35	24	101
OR10		3	1	1	3	2	1		15	26	29	26	81
EV11	22	5	3	10	12	3	2	2	23	60	25	29	136
OR11	4	3	4	8	11	5	6	1	19	57	19	20	100
HH10	23				2	1			9	12	21	4	60
MC10		2	2	4	3	2			4	17	21	17	55
HH11	5	4	1	7	2	1	1		14	30	25	19	79
MC11	2	2	1	1	2	2		1	12	21	14	15	52
DU10	33		4	1		1	1	1	8	16	6	5	60
SP10					2				6	8	18	14	40
DU11	24	4	3	2	9	4	1	1	16	40	30	28	122
SP11	10	13	1		4		1		8	27	8	8	53
Total	124	36	23	35	53	22	16	7	163	355	251	209	939

HEALTH

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	6	2	2	2	1	7	1	2	13	30	30	28	94
OR10	12	12	6	5	4	17	3	3	26	76	29	29	146
EV11	17	3	3	3	2	5	1	1	12	30	25	9	81
OR11	6	3	3	2	2	2	1		4	17	25	11	59
HH10	27	6		2		3			4	15	28	9	79
MC10	3	14		2		17			7	40	22	10	75
HH11	7	7	4	4	4	10	5	4	19	57	39	24	127
MC11	10		1	4	1	10		1	8	25	31	6	72
DU10	37	7	2	1					9	19	18	5	79
SP10	14	2	2	3	4	9	3	5	8	36	25	17	92
DU11	35	10	2	3	1	7	2	3	13	41	35	24	135
SP11	20	5	4	4	5	4	4	3	8	37	18	8	83
Total	194	71	29	35	24	91	20	22	131	423	325	180	1122

SCIENCE/TECHNOLOGY

	On a Job	Voc Ed Bus. DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	3	2	13	1	5	43	2		14	50	6	6	95
OR10	16	5	21		6	38			19	89	9	17	131
EV11	11	7	13	2	10	49		1	20	103	5	5	124
OR11		1	10	1	7	34			3	56	5	5	66
HH10	25	7	5		4	5			3	24	7	8	64
MC10			5		3	17	3		1	29	5	14	48
HH11		2	11	1	6	28	1		5	54	3	7	64
MC11	2	5	7	1	5	21			5	44	3		49
DU10	25	3	9		5	24	2		5	48	2		75
SP10	3	3	4	3	7	14			6	37	4	1	45
DU11	12	1	10		9	47	1		5	73	12	10	107
SP11	19	2	8	2	10	46	2		3	73	3	4	99
Total	116	38	116	12	77	366	11	1	89	680	64	77	967

FARMING/RANCHING/NATURAL RESOURCES

EV10	2					8			4	12	29	11	52
OR10			2		1	7			17	27	18	8	53
EV11	1	2		1	1	16			24	44	18	16	79
OR11	1					12			8	20	24	12	57
HH10	25	7				1			12	20	11	8	64
MC10		2			1	4			2	9	12	22	43
HH11	1				1	5	3		4	13	10	4	28
MC11						16				16	20	8	44
DU10	35	4	2			2			4	12	14	11	72
SP10		1				5		1	6	13	17	2	32
DU11	18					28			1	29	61	23	131
SP11	10		1	1		31			1	34	22	8	74
Total	91	16	5	2	4	135	3	1	83	249	256	133	729

TRANSPORTATION

	On a Job	Voc Ed Bus, DE Home Ec Shop	Math	Eng	Soc Stud	Sci	Arts Drama	PE	Other Places in School	Total School	At Home	Other	Total
EV10	3		4			1			4	9	21	20	53
OR10	15	5	9			2			14	30	17	19	81
EV11	10	15	1				2		2	20	21	18	69
OR11	1	2	7			1			2	12	22	9	44
HH10	23	1							5	6	8	6	43
MC10	1	1	1							2	17	24	44
HH11	13		4						2	6	14	11	44
MC11	3	3	2			4			1	10	22	6	41
DU10	29	2	10		2				3	17	14	1	61
SP10	7	1	5		2	1	3		1	13	23	13	56
DU11	27	12	1			1			4	18	42	22	109
SP11	19	1	1			1	1		1	5	24	5	53
Total	151	43	45	0	4	11	6	0	39	148	245	154	698

Analysis - This instrument consists of 195 work skills. Overall, each student checked an average of 50.8 work skills. Table 27 contains the means for the career education and control groups, as to where the students acquired the skills that they listed, as well as the total number of skills acquired. The career education students listed more skills acquired in every category except from the home. Statistical tests for each category indicate that only the total number and the number acquired on the job are significant at the 0.10 level.

The instrument is divided into categories by occupational groupings. Table 28 presents the percentage of total skills listed by the students for each occupational area. The percentages range from a high of 10.1% for construction to a low of 5.7% for transportation.

Table 27 4b - Inventory of Work Skills

	Mean Skills per Student		F-Ratio	P
Variable	Career Education	Control	Career Education	Control
Job	11.3	5.2	3.9041	0.0740
School	23.1	19.3	1.3232	0.2766
Home	11.8	12.7	0.3914	0.5512
Other	7.9	6.0	1.7764	0.2104
Total	55.8	43.3	4.3869	0.0604

Univariate F-Tests; DFB = 1; DFW = 10

Table 28 4b - Work Skills

Occupational Category	Percentage
Construction	10.1
Health	9.2
Hotel/Restaurant/Personal Service	9.1
Entertainment/Arts	8.6
Mass Communication	8.0
Science/Technology	7.9
Government/Utilities/Public Service	7.7
Business/Office/Accounting	7.5
Manufacturing	6.9
Banking/Insurance/Real Estate/Securities	6.9
Retailing/Wholesaling	6.3
Farming/Ranching/Natural Resources	6.0
Transportation	5.7

Instrument 5a - Attitudes (Grades 2 through 4)

Test subjects: 357 second through fourth graders in Broward, Orange and Pinellas Counties produced the following results:

Attitudes Toward School

Grade Level	Orange		Broward		Pinellas	
	LW	RL	PL	MI	CP	PA
2	13.8*	12.6*	13.3*	16.1	15.0	13.9
3	12.2*	12.4*	13.4*	15.8	14.8	11.4
4	14.4*	13.2*	12.5*	16.9	16.5	11.7

Attitudes Toward Careers

Grade Level	Orange		Broward		Pinellas	
	LW	RL	PL	MI	CP	PA
2	8.9*	9.5*	13.5*	12.6	10.3	13.1
3	9.0*	9.8*	11.3*	13.5	11.6	8.0
4	11.7*	10.2*	11.6*	12.5	12.4	9.7

Analysis - As a result of comprehension problems detected during the posttesting, certain revisions were made in the instruments. This comparative analysis only includes questions whose wording remained the same in both versions. Table 29 contains the mean number of students responding positively to each question among the career education and the control groups. Only one question shows differences that are statistically significant. The wording of that question is, "Teachers like me". Other questions concerning attitude toward school result in no significant differences. While this is an important finding, the lack of other data makes it difficult to interpret.

Table 29 5a - Attitudes

Variable	Means Career Education	Means Control	F-Ratio Career Education	P Control
1	14.0000	14.1667	0.0068	0.9336
2	15.8333	14.3333	0.5811	0.5310
3	17.8333	17.8333	0.0000	
4	12.6667	12.6667	0.0000	0.9882
5	15.1667	12.1667	2.6045	0.1350
6	17.5000	18.0000	0.1899	0.6745
7	10.5000	14.0000	5.0000	0.0474
8	12.5000	12.5000	0.0000	

Table 30 5a - Attitudes Toward School and Careers

Mean student responding "Yes" to each item: (New versus old instruments.)

Item	New	Old	Item	New	Old
1	15.2	11.5*	12	13.2	8.7**
2	15.3	15.2*	13	13.9	13.2**
3	17.8	18.0*	14	8.0	12.5**
4	16.4	17.2**	15	15.8	12.8**
5	12.3	12.7*	16	11.8	12.2**
6	13.1	13.7*	17	10.4	8.2**
7	18.1	17.3*	18	7.1	6.8**
8	13.2	10.3*	19	6.7	11.2**
9	13.6	10.0*	20	17.3	12.5**
10	12.6	11.8**	21	15.6	12.0**
11	13.8	8.5**	22	7.3	-

* Items are identical.
** Items are similar.

Instrument 5b - Attitudes Toward School and Careers (Grades 7 through 12)

This form was given to 200 students in Orange County, 160 students in Broward County and 159 students in Pinellas County. Scores are represented by a Likert average for each item, statement, based on 1, 2, 3, 4 and 5 points respectively assigned to five values for each statement.

Orange

Item Number	WA7 (20)	LI7 (20)	WA8 (20)	LI8 (20)	WA9 (20)	LI9 (20)	EV10 (20)	OR10 (20)	EV11 (20)	OR11 (20)
1)	74	65	77	70	77	73	87	75	78	84
2)	72	79	79	69	81	67	78	75	75	77
3)	82	82	79	71	71	70	86	75	76	72
4)	84	85	83	78	78	77	88	72	76	79
5)	81	76	84	81	80	82	80	66	81	77
6)	81	67	78	67	78	75	87	76	81	78
7)	84	64	80	75	73	70	84	80	78	80
8)	76	80	76	68	71	74	75	76	78	85
9)	80	84	91	77	89	81	96	90	93	86
10)	70	51	78	58	81	66	79	64	70	65
11)	72	69	82	72	78	69	82	72	76	66
12)	85	86	94	82	92	87	93	87	89	93
13)	87	78	85	82	78	73	89	80	86	81
14)	77	64	75	71	78	73	84	68	81	75
15)	71	71	54	63	69	76	84	61	76	64
16)	80	72	80	62	71	77	79	65	82	68
17)	74	63	76	70	70	68	84	74	77	76
18)	58	68	73	56	67	71	77	63	76	67
19)	73	60	68	57	67	59	77	63	67	69
20)	80	83	73	69	72	72	83	67	80	77
21)	76	69	87	79	81	69	86	77	68	80
22)	72	55	79	59	63	61	76	59	72	82
Average	76.8	71.4	78.7	69.8	75.7	72.3	83.4	72.0	78.0	76.4
1)	77	72	85	68	83	83	84	77	84	92
2)	87	80	88	82	80	89	87	83	86	93
3)	85	71	82	75	79	86	83	80	77	87
4)	84	75	87	75	82	88	83	85	85	93
5)	84	78	85	74	87	82	90	84	82	88
6)	85	79	83	77	85	91	86	85	88	82
7)	91	79	91	91	86	88	87	90	87	87
8)	57	53	47	49	45	57	53	42	47	44
9)	65	75	77	65	84	74	65	61	53	53
10)	78	74	83	68	89	83	83	85	71	73
11)	80	74	86	66	76	85	91	86	77	92
12)	86	76	90	69	87	91	90	86	85	90
13)	88	78	84	78	82	94	88	79	80	83
14)	84	62	74	72	74	79	73	67	78	73
15)	84	81	85	82	81	87	91	87	82	86
16)	89	77	88	84	86	92	92	91	89	94
Average	81.5	74.0	82.2	73.4	80.4	84.3	83.5	79.3	78.2	81.9

Broward

Item Number	CL7 (20)	EV7 (20)	CL8 (20)	EV8 (20)	HH10 (20)	MA10 (20)	HH11 (20)	MA11 (20)
1)	74	79	73	80	69	83	83	83
2)	79	81	83	80	73	81	74	75
3)	86	80	79	78	70	78	78	82
4)	84	88	78	84	74	81	87	78
5)	80	89	82	84	80	86	68	83
6)	81	82	78	72	73	80	77	84
7)	80	83	67	76	68	83	78	74
8)	84	79	80	79	75	78	69	77
9)	85	88	85	59	79	97	90	89
10)	83	74	75	61	74	75	82	70
11)	86	81	75	72	77	80	80	81
12)	80	97	86	89	89	94	92	93
13)	86	88	81	89	81	86	82	84
14)	86	82	82	76	72	81	77	80
15)	70	73	73	64	73	73	77	69
16)	81	80	74	83	78	74	77	76
17)	80	76	74	75	78	81	76	81
18)	79	81	67	71	67	68	77	69
19)	78	79	72	70	68	75	75	74
20)	82	85	79	75	84	75	73	78
21)	81	89	75	74	70	76	77	76
22)	78	70	69	71	72	64	67	76
Average	81.0	82.0	75.3	75.5	74.7	78.5	78.5	78.7
1)	84	91	83	81	76	80	87	88
2)	88	86	85	84	75	85	85	94
3)	82	74	77	80	77	85	83	85
4)	90	87	87	87	74	91	79	89
5)	87	82	86	80	86	85	85	80
6)	85	88	85	83	76	84	78	86
7)	88	93	86	90	84	91	87	83
8)	61	68	93	58	60	46	61	57
9)	84	78	79	83	61	68	70	66
10)	84	87	78	77	72	82	76	77
11)	81	76	84	79	59	86	84	80
12)	95	91	86	91	58	89	85	90
13)	88	89	86	89	71	86	78	84
14)	88	82	77	80	72	72	73	75
15)	91	91	83	86	78	86	80	88
16)	90	90	88	92	82	94	82	88
Average	85.4	84.6	83.9	82.5	72.6	81.9	79.6	81.7

Pinellas

Item Number	SE7 (20)	TY7 (20)	SE8 (20)	TY8 (20)	DU10 (20)	SP10 (20)	DU11 (20)	SP11 (20)
1)	83	82	71	69	56	73	70	65
2)	84	68	76	63	72	84	63	77
3)	81	83	77	70	65	78	69	73
4)	80	79	59	70	68	69	62	69
5)	80	83	78	81	86	84	79	91
6)	79	83	75	75	77	84	81	74
7)	80	78	76	77	67	77	62	77
8)	82	81	71	74	66	83	58	77
9)	89	88	80	77	87	66	88	97
10)	74	80	70	80	66	82	65	70
11)	78	84	70	66	63	74	66	83
12)	92	89	84	92	84	87	82	90
13)	87	87	84	76	78	86	69	79
14)	77	81	74	79	74	81	75	75
15)	76	79	67	64	60	64	55	64
16)	81	75	77	70	64	76	68	72
17)	77	81	72	72	74	75	74	73
18)	81	81	64	64	57	77	64	76
19)	79	78	64	63	58	72	54	65
20)	70	79	69	76	69	72	74	83
21)	81	77	77	97	73	75	68	72
22)	71	74	69	71	68	78	64	67
Average	80.1	80.5	72.9	73.9	69.6	77.1	68.6	75.9
1)	75	81	76	74	78	84	83	80
2)	86	86	80	77	88	84	83	84
3)	80	82	78	76	82	85	81	82
4)	78	80	78	80	92	88	81	85
5)	80	87	75	81	85	90	80	85
6)	83	82	77	83	81	84	82	81
7)	84	88	79	85	86	86	86	88
8)	56	58	48	52	45	51	49	45
9)	70	74	66	73	56	64	58	57
10)	82	90	78	83	77	84	82	76
11)	76	75	80	85	88	86	87	88
12)	87	85	84	76	86	87	85	84
13)	79	86	78	50	86	88	84	84
14)	82	79	79	79	74	78	78	71
15)	76	86	82	83	83	84	88	89
16)	83	89	84	88	88	95	91	95
Average	78.6	81.3	76.4	76.6	79.7	82.4	79.9	79.6

Analysis - The results of the statistical analysis is presented in Table 31. Neither the portion dealing with attitudes toward school nor the portion on attitudes toward careers reveal a statistically significant difference between career education and control students. Overall, the responses tend to reflect positive attitudes. On a five point scale, the average response was 3.8 on attitude toward school. Attitude towards careers was somewhat higher with an average response of 4.0.

The student responses to individual questions were also analyzed to determine if there were any differences at that level. Table 32 contains the mean scores for the career education and control samples for each question on the school attitudes section. An examination of these means reveals very similar attitudes in both groups. This is confirmed by Table 33 which contains the statistical tests for each question. Only one question approaches significance. Even this result can be explained in terms of chance variation. Since there are twenty-two tests of significance, at least one of those tests would be expected to approach the 0.05 level of significance.

The attitude toward careers section produced similar results. Table 34 contains the means for the career education and control groups for each question. Again the group means are very similar. Table 35 contains the statistical tests for each question. In this section, no item even approaches the 0.05 level of significance.

In the school attitudes section, most questions range between 3.5 and 4.0 on a five point scale. For both groups, questions 9, 12 and 13 are somewhat above this range, while questions 15, 18 and 20 are below. These questions are:

High: 9. I would not drop out of school even if I were given the opportunity.

12. If I work hard I can do well in school.

13. My school work will help me as my career progresses.

Low: 15. I would rather be studying in school than working full time.

18. I like to write.

20. I am intelligent.

When questions 9 and 15 are compared, there is a contradiction. Students respond strongly that they do not want to drop out, but many are inclined toward working. This may point to support for strong work-study programs that allow students to graduate, but also to work while they are studying.

In the section on career attitudes, the students generally responded around 4.0 on a five point scale. Questions 8 and 9 received somewhat lower responses while question 16 received a somewhat higher than average response.

High: 16. Be prepared for a job interview.

Low: 8. Plan for a career in elementary school.

Low: 9. Plan for a career in middle school or junior high school.

Little can be said about these questions beyond the statement that the attitudes seem reasonable.

Table 31 5b - Attitudes Toward School and Careers

	Group Mean		F-Ratio	P
Variable	Career Education	Control	Career Education	Control
School	76.4076	75.6923	0.2030	0.6603
Careers	79.7614	80.2691	0.1389	0.7134

Univariate F-Tests; DFB = 1; DFW = 24

Table 32 5b - Attitudes Toward School and Careers

Section 1 - Mean School Attitudes

Item	Career Education	Control	Item	Career Education	Control
1	74.8461	75.4615	12	87.8461	89.6923
2	76.0769	75.0769	13	82.5385	82.2308
3	76.8461	76.3077	14	77.8461	75.8461
4	77.0000	77.6154	15	69.6154	68.0769
5	79.9231	81.7692	16	76.3077	73.0769
6	78.9231	76.6923	17	75.8461	74.2308
7	75.1538	76.4615	18	69.7692	70.1538
8	73.9231	77.7692	19	69.2308	68.0000
9	87.0769	83.0000	20	76.0000	76.2308
10	74.3846	68.9231	21	76.9231	77.6923
11	75.7692	74.5385	22	70.7692	68.2308

Table 33 5b - Attitudes Toward School and Careers

Section 1 - School Attitudes

Univariate F-Tests; DFB = 1; DFW = 24

Variable	F-Ratio	P	Variable	F-Ratio	P
1	0.0437	0.8304	12	1.1784	0.2885
2	0.1776	0.6801	13	0.0212	0.8801
3	0.0560	0.8097	14	1.0489	0.3170
4	0.0410	0.8354	15	0.2775	0.6090
5	0.7793	0.6100	16	2.0903	0.1580
6	1.4003	0.2470	17	0.8297	0.6254
7	0.2870	0.6031	18	0.0152	0.8986
8	2.8275	0.1022	19	0.1771	0.6805
9	1.4416	0.2401	20	0.0125	0.9080
10	3.1857	0.0836	21	0.0776	0.7793
11	0.2295	0.6411	22	0.9103	0.6483

Table 34 5b - Attitudes Toward School and Careers

Section 2 - Mean Career Attitudes

Item	Career Education	Control	Item	Career Education	Control
1	81.1538	80.8461	9	68.3077	68.5385
2	84.0000	85.1538	10	79.4615	79.9231
3	77.0000	80.6154	11	80.6923	81.3846
4	83.4615	84.8461	12	84.9231	85.0000
5	84.0000	82.2308	13	82.4615	82.1538
6	82.6154	83.4615	14	77.3846	74.5385
7	86.3077	87.6154	15	83.3846	85.8461
8	55.5385	52.3077	16	87.0769	89.9231

Table 35 5b - Attitudes Toward School and Careers

Section 2 - Career Attitudes

Univariate F-Tests; DFB = 1; DFW = 24

Variable	F-Ratio	P	Variable	F-Ratio	P
1	0.0150	0.8993	9	0.0035	0.9522
2	0.4678	0.5072	10	0.0406	0.8362
3	0.7706	0.6073	11	0.0538	0.8132
4	0.4072	0.5361	12	0.0010	0.9736
5	1.2375	0.2766	13	0.0088	0.9230
6	0.3395	0.5720	14	1.8485	0.1838
7	0.9415	0.6567	15	2.7931	0.1042
8	0.6275	0.5583	16	2.8507	0.1008

Student Critiques

The numbers listed below indicate the percentages of each student group who "liked working" with each form, as follows:

	Orange		Broward		Pinellas	
	WA7-8 (43)	LI7-8 (50)	CL7-8 (42)	EG7-8 (40)	SE7-8 (40)	TY7-8 (41)
Attitudes	88%	76%	73%	55%	72%	58%
Economics	67	76	80	7	17	24
Worker Titles	88	82	64	32	60	36
Workers in Different Industries	76	78	69	15	30	24
Preparation for Employment	65	74	69	37	70	53
Considering Careers	93	82	90	50	75	48
Career Planning	86	84	95	37	65	63

	EV10-11 (40)	OR10-11 (45)	HH10-11 (40)	MC10-11 (44)	DU10-11 (44)	SP10-11 (40)
Attitudes	60%	82%	77%	93%	43%	62%
Economics	12	40	45	43	9	17
Worker Titles	42	62	75	79	37	50
Requirements/Functions	32	51	80	93	43	40
Considering Careers	37	80	75	84	45	47
Career Planning	42	80	80	95	47	60
Acquiring a Job	40	71	75	88	36	47
Work Skills	40	60	52	75	25	20

The numbers listed below indicate the percentages of each student group who could recall a teacher, counselor or occupational specialist asking the student questions similar to the ones on each form, as follows:

	WA7-8	LI7-8	CL7-8	EG7-8	SE7-8	TY7-8
Economics	27%	22%	35%	15%	32%	29%
Worker Titles	37	24	38	22	32	19
Workers in Different Industries	23	16	21	20	22	21
Preparation for Employment	25	14	30	27	37	36
Considering Careers	41	44	47	32	32	43
Career Planning	44	36	57	25	40	60

	EV10-11	OR10-11	HH10-11	MC10-11	DU10-11	SP10-11
Economics	30%	31%	35%	9%	22%	30%
Worker Titles	42	17	30	15	37	30
Requirements/Functions	50	42	45	18	25	42
Considering Careers	50	60	62	34	36	42
Career Planning	57	60	62	45	40	40
Acquiring a Job	50	44	60	27	27	42
Work Skills	32	20	30	6	13	17

The numbers listed below indicate the percentages of each student group who believed that the EPIC test-survey:

Career Planning - Would help with their career planning.

Knowledge - Had given them additional knowledge about careers or occupations.

No Experience - Was O.K., interesting or enjoyable but said nothing about what they "got" from the experience in terms of career planning assistance or knowledge.

Negative - Was a negative experience.

	Orange		Broward		Pinellas	
	WA7-8 (43)	LI7-8 (50)	CL7-8 (42)	EG7-8 (40)	SE7-8 (40)	TY7-8 (41)
Career Planning	18.6%	28.0%	21.4%	30.0%	30.0%	14.6%
Knowledge	41.9	16.0	35.7	30.0	30.0	31.7
No Experience	39.5	52.0	42.9	32.5	37.5	43.9
Negative	00.0	4.0	00.0	7.5	2.5	9.8
	EV10-11 (40)	OR10-11 (45)	HH10-11 (40)	MC10-11 (44)	DU10-11 (44)	SP10-11 (40)
Career Planning	7.5%	17.8%	20.0%	27.3%	18.2%	22.5%
Knowledge	25.0	33.3	15.0	36.4	13.6	42.5
No Experience	52.5	42.2	60.0	31.8	52.3	35.0
Negative	15.0	6.7	5.0	4.5	15.9	00.0

Walker Junior High, 7th and 8th Grade

- It helped me to think about it more. P.S. I got out of geography.
- Well, I think it helped me know that I'm going to have to start working soon. I got out of science.
- Wow! It was really neat! It was really interesting to tell about me, and what I want to do. I would like to start thinking about my career and future and this helps me a lot.
- I really liked it. It was very interesting to find out what kinds of jobs are needed and the ones that are least important. This program will probably help me for future planning in my career.
- It has made me think more of what I want to do with my future. I haven't really thought about it. I guess I put it aside until the last minute. Today has been interesting and helpful.
- It is not too bad; it gets you thinking about your career more.
- I have learned more careers and how to get a better job.
- They helped to choose the career I liked.

- I learned about careers and where to find jobs.
- I have learned a lot from these ditoes. I have found out things I did not know and it has helped me a lot.
- I have learned more jobs, its helped me in my career.
- It helps you find out about different jobs.
- I learned different careers. I didn't know there was so many.
- Well, I have realized a lot about different jobs and interests and verified all the things I already knew.
- I learned more about different jobs (and my own that I like). (I got out of class.)
- I like the helpful experience that you people had put on for the students of Walker Junior High.
- It was, in a way, fun. I know I didn't do so well because I don't know that much about the different careers, but it was fun. (I got out of class.)
- I liked the test that you gave today. I thought it was very interesting. It gave me some more ideas about other things.
- I learned about careers.
- I learned more about what I want to be.
- I learned more jobs.
- I learned about a whole bunch of new jobs.
- It helped me to understand how many jobs that are available for me.
- I learned about different jobs.
- I learned what I wanted to be.
- I have learned about many careers that I am interested in.

- Cashier in store.
- About the same thing as the first time.
- I already know how to feed my dog, and my cat. Thank you for teaching me.
- I already know how to feed my turtle and my bat and my little pet barracuda, he can already bite off my finger.
- It was pretty good, but it was boring.
- I got out of class today and it was pretty interesting.
- It was O.K.
- It was interesting and helpful.
- I liked it a lot.
- It was far out, we missed classes and had fun.
- It kind of was like the first test.
- It wasn't too bad, it was pretty good, I even got to get out of class.
- I think it was interesting.
- Well, I think it is interesting.
- It was O.K.! I hope we can do it again some time

Liberty Junior High, 7th and 8th Grade

- Well, I don't like to read but it was alright. I like it especially because maybe someone can find me a job working with horses and other animals.
- I learned more about different jobs. I am going to start doing things that will help me with my job.
- It helped me get an idea of how many jobs there are and an idea of several I might choose.
- I liked it because in a way it kinds of helped me. Like maybe planning a job or something.
- It made me think more about what I'm going to do for a career and a little about how to go about doing it.
- I learned a lot more about different jobs, and I'm also going to start finding out about jobs which can help me in my career.
- Different jobs I might like to do.
- Well, it told us about different careers of different people, and about jobs I could do.
- I am good at working at cars and at electrics, but if I don't like mechanics work I will go into doing electric work.
- It's alright to start thinking about a job now because I'm going to be needing money soon.
- I learned about what I am going to do when I get older. I've been planning to go to college for 6 years to student dental health and I had fun.
- I learned what I was going to do when I got older and I am planning to go to college for 5 years and learn to be a nurse.
- This was an interesting experience and it made me decide what career I should be going into and how to go about it in the years to come.
- I like it because it helped in planning for my career.

- I like it because I got to skip 3 classes. I didn't like to skip art because I have a handsome art teacher. I liked to be with you all because I learned a lot of new words. Thank you.
- I like it, especially to get out of my classes and to see how many jobs there was.
- I learned about different careers!
- I liked it some and I learned more.
- It was fun and it was worth it to learn what I want to be.
- It was fun, I enjoyed it. We will have to do it more often. I learned some things about all the different jobs.
- I learned how I should get a job. The different kinds of jobs there are and how important they are. How to plan a career.
- I learned about jobs I never heard of & learned more about the ones I knew.

- Well, I don't like to read and it helped me see what I wanted to do and I got out of my classes.
- It didn't teach me anything but it was fun.
- It is O.K. I guess. I know a lot of math, science and geography, but english is sort of hard.
- It was O.K.
- O.K.
- It was a big thrill.
- It was O.K.
- Well, it has been a pretty O.K. experience for me and I did enjoy it.
- It was O.K.
- It was O.K., it wasn't that hard.
- It was fun but it didn't teach me anything I didn't already know. It was interesting.
- Got us out of classes.

Crystal Lakes Middle, 7th and 8th Grade

- It was interesting doing this little quiz and I found out more about what I really wanted to do.
- I think it gave me some ideas.
- To know all the jobs there are and what I am interested in.
- I became more aware of career possibilities and began to think more about planning for my career.
- It made me open my ideas to a job and made me more interested in deciding a job to pursue.
- I learned what I wanted to be instead of wanting to be a lot of different things.
- It helped me to understand about what I want to be.
- It has helped me think even more and exciting careers for myself.
- It was interesting in planning for a career after going to college or doing something else.

- It was very hard, but it was educational.
- Today it showed me what I had a chance to do.
- I have furthered my experience in the acknowledgement of careers.
- Have been in planes and know about many instruments in them.
- It in a way made me think more about my knowledge of careers.
- I learned that I knew something. I didn't think I knew much about.
- I think it was fun, and I learned a lot about careers.
- That there was a lot of jobs that are offered here.
- Well, I learned to get a job one must plan well and make sure he knows what he/she is getting into.
- I learned a lot about careers and things that I would have never learned someplace else.
- What certain jobs and trainings to do and how to get them.
- I learned somethings about different careers that I didn't know before.
- I learned many new careers. Know more about myself.
- I learned of all the careers I did not know before.
- I learned more about careers and more occupations in careers.

- It was alright I guess.
- To do hard work.
- All of my teachers are nice but Mrs. Rylinms.
- It was a change and I think it was fun.
- I enjoyed it and thought it was fun and was glad to get to take the test.
- Interesting.
- It wasn't fun, but it was O.K. (I guess).
- I think that the first few tests were boring. But the ones on careers were all right.
- I not do you not this you.
- It was very nice and I enjoyed it a lot.
- It was alright, but it was boring.
- I had no experience today while I was here.
- I didn't like it very much, but it was O.K.
- My experience today I like taking the job training.
- It was a fun one and I hope they will help you.
- It was O.K.

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Everglades Middle, 7th and 8th Grade

- It helps you to get a job, what job you want and lets you pick it.
- I want a job, and I want a career first.
- I enjoy experiencing new careers for a living.
- It was fun. It made me think more about different careers I might like to have.
- I liked it and I hope that it will help me in the future to become a nurse.
- I saw how many jobs there are and which ones I would like to learn more about.
- Today this little test has waken me up to think more about my future career, its training, its qualifications, etc.
- I have learned how important a job is and the sort of job I want and how to get it.
- I am experienced and interested in mechanics or a truck driver.
- It really made me think of what I might be doing in the future.
- Look at the jobs I can get if I was experienced.
- It tells me what I like and what I don't.

- I think I need more experience.
- Interesting in learning how others work in our world today.
- I know about more jobs.
- School has learned me a lot of things that I didn't know and I like school.
- I enjoyed it and I like to know more about some of those occupations.
- I learned about new things.
- It was alright and I learned more.
- That there are a lot of different kinds of jobs to pick from.
- I learned more about careers and their workers.
- I learned some words I never heard of.
- I learned the different kinds of jobs.
- What kinds of jobs there are.

- The reason because I am here, because I like, this is good for you.
- O.K.
- How to write circles of yes and no and I got writer's cramp.
- I learned how to write marks and how to write yes and now and how to draw circles.
- It was alright.
- I enjoyed it.
- It was good.
- I didn't like it because I am not thinking about it now.
- O.K.
- I doing no.
- Today the forms are more modern.
- My hand is about to fall off.
- It was alright.

- Despicable.
- Despicable.
- It was boring.

Seminole Middle, 7th and 8th Grade

- It helped me thinking about careers.
- I learned more about careers and what I want to become.
- I learned what I really want to do and I learned about other careers too, which helps me.
- I learned a lot about different careers and how to plan for my own career.
- I learned about more careers that I might want to go into.
- My experience today was interesting because I really haven't been interested in a career but now I think I am.
- It was fun to see different careers I can choose.
- What careers I liked and would want.
- I stopped and through about some of the things I wanted to be.
- It really made me think about what I wante to be, plus I got out of a test.
- I experienced trying to really find out what I want to do in life.
- I have told you what I am going to possibly be when I grow up and what I enjoy.

- I enjoyed it because we all learned more about jobs.
- It was fun and I learned various jobs.
- I learned all about the careers.
- I learned about many careers.
- I learned about many different jobs.
- Because I get to find out about how much I know about careers.
- Learning all about jobs and careers and values in learning.
- I learned that there are so many careers to choose from and get an education.
- I have learned about different jobs and careers and how I get a job.
- Finding out what kind of jobs you like and learning some new ones.
- It was pretty much fun, I learned some stuff about myself.
- It was sort of fun to see what I know about me.

- I liked it.
- It was alright, but I am glad it's not every day we do this.
- None - still thinking.
- I liked the people and students around me.
- It is kind of fun to be here today although I did not plan to be here.
- This was very interesting.
- It was freaky.
- It's O.K.
- It was very pleasant doing it.
- I thought this was a good way to skip class. Thanks.
- I enjoyed it very much. It makes you think, which needs to be done more often.

- It was kind of boring.

Tyrone Middle, 7th and 8th Grade

- I liked it because it helped to plan for a career.
- I have had a very exciting experience. I have learned about the different jobs, and I know what I want to be.
- It gave me a great deal to think about what I want to be.
- I think it's good because we should know about careers so we know what subject to take in high school.
- I finally decided what I want to be.
- I think all of their papers were very helpful in helping me to find what I want to earn my living as.

- I enjoyed this because now I understand more about careers.
- I have learned a lot about myself that I didn't know and I have learned about different careers I didn't know about.
- Know what to expect when the time comes to take a job in my community.
- It was fun and you learned.
- It was O.K., I had no idea there was all of these different jobs that we could have.
- I learned where to go for a job and I learned about careers.
- It let us know about the different kinds of jobs.
- I learned a lot of jobs that I didn't know about today, I am glad I know now.
- I liked finding out that other people want to know about people's interests in the future.
- I have learned about many different careers I never knew about and I am glad I came.
- This test was good because it tells you about different jobs.
- I have learned about different jobs, what needs the most education and what needs the least education.
- I think these tests are very good, and they give an idea of careers and how they are.

- It was O.K., it was better than doing our regular school work in class.
- It was O.K. the test.
- Very very good because we missed other classes.
- It was tiring but interesting, and it's got me out of one class.
- It was fun taking tests.
- It was O.K.
- It was alright.
- It was O.K.
- It is very hard to find a job at my age.
- It was kind of nice of you thinking about our careers and lives; other people wouldn't hardly care.
- I took a lot of tests.
- I liked and I enjoyed it.
- It was interesting.

- Confusing.
- It is not very good and not very activity-like.
- I did not particularily care for it because I don't like things like this.
- I do not like it.

Evans Senior High School - 10th and 11th Grades

- I enjoyed my experience today because I have learned an idea in which I can go about my career, and also I learned how to choose my job that I am interested in.
- It was different, a change of pace; it brought out new ideas about jobs and finding a job.
- It was alright; it helps you find out what kind of career you probably want.

- It showed me that I don't know a whole lot of different jobs.
- It was very tiring. Lots of good information though.
- I didn't know there were so many jobs.
- It helped me realize that I don't know as much about the different occupations as I thought I did.
- I like it; it taught me stuff about jobs. It got me out of 1, 2, 3 which I liked even more. (Not really.) The tests were very interesting.
- It was different; its interesting to find out how much I know about the different occupations. They are also easier to understand.
- I learned about different things and I got a little more knowledge.
- I thought it was very good. It helped me understand more about jobs and business careers. I think more students should take these tests.

- There were a lot of questions I didn't know the answers about occupations.
- I enjoyed it a lot.
- Since it seems important to you to trap 40 warm bodies in a room to fill out a form to meet some quota, I am honored to be a member of such an important vital group to the existence of your program.
- I feel all of this is good if some positive feedback can be acquired.
- I thought it was interesting and a chance to do something like this.
- It was interesting and fun.
- It were alright. We have a lot to read. But it were alright.
- Some of the sheets had good points and helpful questions, but I thought that some were rather irrelevant.
- It was kind of tiring but worthwhile.
- I enjoyed getting out of 2nd period for the day, but I found those tests rather irritating; there were too many with too much detail; plus my decision for the future is not a burden.
- Taking a lot of test and answering a lot of questions.

- Alright, help someone, but I don't know what it did for me. Possibly this money could be used in a better way.
- It was alright except the last one I didn't know much about; I got out of 2 classes.
- It was a good idea but too long and drawn out. The last page wasn't even worth trying on no one knew it.
- It was a lot of questions I had never been asked before. But it didn't have any about art.
- It was boring, but if it helps this school any, I think it was worth it.
- It was pretty good. I liked it but I didn't love the idea of being called out of class because we were getting ready to take a test.
- It was worthwhile; a stimulating experience. It was a bit puzzling why "we" were picked.

Evans Senior High, 10th and 11th Grade (Group for which data was eliminated)

- It was alright. Then you know what career you want to do and if you have the ability to do it.
- I didn't mind doing the tests. I would like to know more about the job I am interested in so I can begin work to make sure this is the job for me.
- I really didn't mind taking the tests. I would like to know more about the job I'm interested in.

- I like it because it makes me feel good to learn.
- This is the second time I have taken these tests - it is not a new experience but I know more this time than I did last time.
- That I learned how to ask for the job and the responsibility that takes place.
- I like the day because it was very interesting and gave me more time to understand the meaning of today.
- I enjoyed filling out these forms because I knew it would be of help. It was an even better experience because the people who helped give the tests were very kind and understanding.
- I learned the skills needed for jobs and what should be done to get a job.
- Learned that jobs are important to people.
- It was O.K., it helps you know what you want to do.
- I found out that I don't know somethings about a lot of jobs.

- Some of the things that were asked I did know somewhat about it.
- It got me out of class.
- Some of the tests were very interesting, but since I took the same kinds of tests before, I dind't learn much this time.
- It got me out of class.
- O.K.
- It was better than being in class.
- I really didn't have any special experience.
- It's O.K.
- Well, most of the tests were rather interesting, and I know I'll be asking myself those questions soon.
- It was good, I did this same thing at the beginning of the school year.
- It was nice.
- It was alright but I really don't enjoy doing it.
- I wish that somebody would give us some information on careers!
- It was fun.

- Crumy.
- It's too hard!
- I haven't learned anything.
- They don't help you at all today, no experience at all.
- Boring!
- No good.
- Stinks.
- A boring waste of paper and time.

Oak Ridge Senior High, 10th and 11th Grade

- I think that it was a change for me and I had fun realizing what I was really interested in. Thank you.
- I read a lot of questions and put my mind to thinking about different things and look forward to another interview.
- Well, for instance, modeling interests me a lot because I am a junior model and that's about all for today.
- Helped with your own planning, also it gives a few more careers to think about, also reasons for doing what, also shows your own ignorance.
- Understand that I have a lot of work to do and to get the job I want to make life easier.
- I liked it because it really made you stop and think about your career.
- Knowledge of the economic system is boring, but it made you think a lot about your career.
- In a way I realized from my answers what I might like to do.

- I have learned about the different jobs and how to go about the jobs.
- I learned what to expect from an employer and to look for more than one job.
- Today's survey was most tredging, but I found it most interesting, learned about new jobs and new things.
- Found out I don't know much about many jobs or what I can do.
- It was interesting, I learned more about different jobs.
- I've learned about many jobs and how to act when going to get a job.
- I found out about a lot of other jobs that were available and a few requirements.
- Today I've learned a little more than I knew before. I like to take surveys. Also this showed me how much I already knew and didn't know about jobs.
- I learned a lot about my own knowledge of careers and I better get on the ball.
- I learned there is a lot to choosing a career.
- I found out how little I know about most jobs.
- I found out a lot of things I didn't even know about some jobs.
- I enjoyed it. It was exciting and helped me become well informed with careers and this program seems to be successful to help people to acquire jobs.
- It made me realize what I need to know about job opportunities. Thanks.
- This experience helped me to learn more about what fields of work were available and that there is a real importance of an education in order to succeed in the working class world and also with an education you can set a higher goal in life and be able to achieve it.

- I think I could use more information and less questions.
- A lot of the material I never heard of but it was O.K., I thought some of the material was useless (in my opinion).
- It was O.K.
- My experience here today has been A.O.K. because I've missed a test in Am. Lit, missed CDE and ½ of geometry.
- Very interesting.
- That you were trying to find out if we were going on to college or a career, if so what and how much we know about the subject.
- It was interesting and I like getting out of class and I hope something good comes out of it.
- It was different and I liked it because I got out of some of my classes.
- Not like I expected it to be.
- I liked it because I got out of class.

Hallandale High, 9th through 12th Grade

- It was interesting looking at all the jobs there are to choose from and this will help me in some ways.
- It was alright. I learned that there are a lot of careers that sound interesting that I never really thought about before.
- I learned a lot about different careers and it helped make me find out more about myself and to choose the career best suited for me.
- How to plan for a job.
- It liked it but it was too much paper work. I think I've found a career.
- I learned about new jobs that have interested me.
- I think it will help me understand the value of choosing a career that is good and useful to me.
- It was very helpful in helping me with my career.

- Learning about different jobs.
- I have learned more about different types of jobs.
- All the different jobs that might interest me.
- I learned about many skills and fields of work I never knew about!
- I realized how many fields of work there are that I didn't know about.
- Of all the types of jobs you can do after you finish school.

- I enjoyed it, but I would not want to do this very soon anymore. I am glad I had the opportunity to do so.
- I enjoy taking the career test. It was very interesting.
- Very easy and tiring.
- Interesting.
- It was alright, I could have been finished but there was a bit of noise at the side of me. I like it.
- It was too long but it was alright.
- I feel like the man from T.H.U.S. (Tired, Headache, Uncool, Sick).
- I like to do your work and I enjoy coming here today and I like it well.
- I liked it because it got me out of two of my classes.
- It was interesting. But it was too repeating.
- I like working with these tests.
- It was pretty good but it did not have to do with the kind of work I am interested in.
- It was O.K.

- I think the test could probably have been a little shorter. After awhile, it got boring.
- It was very boring and worthless.

McArthur Senior High, 9th through 12th Grade

- They will probably help me in getting a good job
- I like coming here taking this test, trying to choose a career I will be happy with.
- I think it was helpful in seeing how much I know about certain jobs and seeing if I really want to pursue the career I had previously wanted.
- Interesting and probably helpful in the future.
- It was nice being here to learn what is best for you now and later in life.
- To start looking into what I want to do.
- I am glad that I took the test so I could see all the different careers that there are to choose from.
- I think it was a good experience, it will help me with my career later in life.
- I found out there are a lot of jobs to consider.
- It helped me think about my career more.
- Today was a great way for me to find out more what it took really to be what I plan to be. Thank you.
- I have planned to be a mortition for 7 years and have been accepted to the program.

- I feel that some of it was unneccessary but some of it could be helpful to me.
- I feel that this test will show how little I know about the career I'm interested in.
- It was O.K., it was a lot to do at one time but you got an idea of how much you know or didn't know about jobs.
- It was a good experience in learning more about a job.
- I learned how much I didn't know about things and how many things I did know about.
- I learned more about what to do and how to do things when you go for a job.
- I learned more than when I started.
- Learned a couple of things.
- It's good because it might help to get some idea of what people like and maybe try to get it into this school.
- I learned most about careers that I liked.
- It really helped me, I feel that I can go find a job and it will be a lot easier.
- Although it was a very long test, I think it was a very good experience for all of us. And I hope to take more of these if it will help me.
- It was interesting and informative.
- I learned a lot that I didn't know and I am glad that I took this test. I hope that it helps me in my job career.
- I really didn't know such a wide range test could ask you so much info about yourself and to let you more or less see where you stnad or what you need.
- I learned that I know very lettle in the skilled world.

- It was O.K. To much at one time, it was a good thing.
- I thought it was very interesting.
- The was worthwhile except a little boring.
- I liked it because I got out of some of my classes. I didn't like it because it was boring and dull. And didn't last long enough to let me stay out of math.
- I like it, you could talk during the test, leave when you were finished. I would do it again if they asked me.
- I think it was a good idea of doing this, it was a great experience.
- I dromastic business pact.
- Tired, did not know much on forms.

Dunedin Senior High, 10th and 11th Grade

- My experience is finding out about different types of jobs and finding out what you will get into when getting the job.
- My experience today opened up my mind more on my career, and it makes me want to start on planning my career.
- This test showed me other possibilities of different careers I had never thought of.
- I learned about a lot of different jobs, now I have other fields of work to look into.
- I learned the importance of thinking of my future because I am not getting any younger, so I might as well stop putting off my career.
- I didn't realize all the career opportunities, but it gave me a chance to look at them, all I've got to get started on my career plans.
- It taught me a lot about finding and how to look for a job that would best suit me.
- Helped me think about what I really want to do.

- I liked it because there were a lot of things I needed to know before I graduate.
- It showed me that there were a lot more fields open than I thought.
- It was different, and I learned more about jobs today than before.
- It was interesting and helpful in some areas.
- I learned different jobs and names for those I didn't know existed.
- I figured how many jobs I have had and how much I know.

- I will like to do many work as I could to get good education.
- I saw all kinds of different jobs, but didn't learn anything.
- It was too long, but very interesting.
- It was a lot of writing but it was better than class.
- I think it was interesting.
- It was fun.
- I thought it was O.K., but too long.
- I think that more emphasis should be placed on what we do after school since this is all just getting ready to be a functioning citizen.
- What was available, O.K.
- It was O.K., but it was too long.
- It was much harder. It was better than the last test.
- Much of the information was useful, but some did not relate to us at all.
- I was not ready for this.

- I feel the tests we have taken are not helpful mainly because emphasis seems to be placed on getting done. More personal work is needed.
- It was too long for one day - it should take at least 3 days to go over.
- It was hard work ant it really kept me busy and I really don't want to do it anymore.
- Too many tests, confusing at times.
- All I think is that we had too many tests to enjoy it.
- It was long.
- Boring.

St. Petersburg Senior High, 10th and 11th Grade

- I thought it was really good in the way that it got me thinking about my future years.
- Something different and unusual, helpful in some ways, made you think.
- At first I did not understand it, but when I got started, I found out that it was trying to help you to plan the future for yourself, thanks.
- I really enjoyed it and it was a very helpful experience, I really learned more about jobs and my future career.
- It is giving me a little bit of an idea of what I am going to do and let me know how many different careers there really are.
- It may have helped in some way, and it made me stop and think about different occupations.
- I feel it made me think about my future and I think it was helpful.
- I feel that this test was real good for helping a person plan for a career in the near future.
- My experience is that most people and most people think wrong, but my experience is getting a job and stick to it for good while and make money.

- It gave you more information about jobs and how to get them and just about jobs in general.
- Told me more about jobs and how to get them.
- It was interesting because I learned about what I knew about in different careers and realted subjects.
- Work a nurse's aid had.
- It was very nice, I had the chance to see what all I could do and what I have done.
- To understand more about jobs.
- It was different, it was pretty interesting about jobs I didn't know about or never heard about.
- I found out some things that I thought I knew but really did not.
- I learned that there is more to life than being one thing. I learned a lot more things I like. You are really nice people.
- It was good, it showed me what I now don't know about lots of intersting jobs.
- A lot of tests, but it helps.
- It helped me to know how many different occupations there are.
- Some actual help, very worthwhile.
- It helped me find out about different jobs and requirments it takes to get certain jobs.
- I think it was good and I found out that I didn't know much about many occupations.
- It lets you know how much you don't know about jobs or the economy. The counselors never seem to have enough time to talk to you when you're filling out schedules.
- I think it was good. It helped me to gain better knowledge of careers.

- I enjoyed it but the last test I had to guess.
- It was O.K. I thought some of it was too high of a level to be giving to high school students.
- Interesting.
- It was alright - no complaints.
- Thrilling, I didn't think I knew that much.
- Well, I really don't have that much experience in jobs here today.
- It was terrible because some man told me I wrote Yule Gibbins on my paper instead of my name which was bull.
- Worthwhile.
- A lot of tests, but it was alright.

Student Critique

Analysis - Summary statistics for the student critiques of the EPIC instrument package are contained in Table 36. The data clearly indicates that the EPIC instrument package is not particularly aversive to the students. Only 6% report that the experience was a negative one. On the other hand, over 50% report that the experience was useful to them in planning their careers or in helping them learn new information. The EPIC instrument package does not duplicate existing testing for this sample. Approximately two-thirds of the students reported that they had not previously been exposed to the material in the EPIC instruments. This was especially true of the instruments measuring economic knowledge and number of work skills. The type of testing done by the EPIC battery was somewhat more frequent in career education schools. However, even in the career education schools, less than 40% of the students report being asked questions similar to the ones in the EPIC battery.

Table 36 Student Critique

Liked working with:

Middle School:	Percentage	High School:	Percentage
Attitudes	70	Attitudes	52
Economics	45	Economics	21
Worker Titles	60	Worker Titles	58
Workers in Dif. Ind.	49	Requirements/Functions	57
Preparation for Emp.	61	Considering Careers	61
Considering Careers	73	Career Planning	67
Career Planning	72	Acquiring a Job	60
		Work Skills	45
Average	61.4	Average	53.0

Table 37 Student Critique

Previous Exposure

Middle School:	Percentage	High School:	Percentage
Economics	27	Economics	26
Worker Titles	29	Worker Titles	29
Workers in Dif. Ind.	21	Requirements/Functions	37
Preparation for Emp.	28	Considering Careers	47
Considering Careers	40	Career Planning	51
Career Planning	44	Acquiring a Job	42
		Work Skills	20
Average	32.0	Average	36.0

RESULTS AND ANALYSIS OF TEACHER DATA

Staff Development Instrument - Knowledge of the Economic System

Below is a summary of the total number of teacher responses, by school, for each of the eight economic areas.

Eight Economic Areas	Elementary						Middle						Senior High						Total
	LW (17)	RL (17)	PL (24)	M (24)	CP (16)	P (16)	CL (19)	EG (19)	WA (16)	LI (16)	SE (16)	TY (16)	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)	
Profits	17	10	32	16	8	14	15	8	12	9	6	4	7	7	6	6	8	12	197
Productivity and the Market	58	12	8	6	9	12	8	3	6	2	5	6	6	4	1	10	10	12	178
Labor Market Demand	53	5	16	6	7	8	10	2	4	5	7	8	5	3	6	6	10	12	173
Consumer Economics	56	10	20	10	13	16	12	8	6	7	16	9	9	5	8	14	7	14	240
Business Cycles/Monetary Policy	19	8	24	8	5	2	6	3	4	2	2	3	5	4	1	2	3	6	107
The Roles of Government	30	12	32	14	19	8	6	7	6	6	10	4	6	6	5	8	8	10	197
Internat'l Trade/Monetary Policy	2	4	0	11	5	4	2	2	4	0	0	3	5	0	1	2	2	2	49
Comparative Economics	8	4	12	3	4	0	5	4	2	4	12	2	4	2	4	6	2	8	86
Total	243	65	144	74	70	64	64	37	44	35	58	39	47	31	32	54	50	76	1227

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 17 Lake Weston Elementary teachers and 17 Rock Lake Elementary teachers in Orange County.

Lake Weston/Rock Lake Elementary 8 Economic Areas	Subjects teachers were teaching when using economics examples: Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	12/2	3/2	2/6								17/10
2) Productivity and the Market	8/3	14/3	12/6	5/0	6/0		4/0		9/0		58/12
3) Labor Market Demand	7/0	13/0	10/5	8/0	7/0		4/0		4/0		53/5
4) Consumer Economics	14/3	14/0	11/7	4/0	4/0		5/0		4/0		56/10
5) Business Cycles and Monetary Policy	7/3	4/2	8/3								19/8
6) The Roles of Government	4/0	5/2	12/8	1/1	4/1	4/0					30/12
7) International Trade and Monetary Policy			2/3		0/1						2/4
8) Comparative Economics	3/0	2/0	3/4								8/4
Totals: LW/RL	55/11	55/9	60/42	18/1	21/2	4/0	13/0		17/0		243/65

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 6 Pasadena Lakes teachers (counted 4 times) and 24 Miramar teachers from Broward County.

Subjects teachers were teaching when using economics examples:

Pasadena Lakes/Miramar Elementary 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	12/13		8/3	8/0					4/0		32/16
2) Productivity and the Market	0/1		0/4	8/1							8/6
3) Labor Market Demand	0/1		8/5	8 0							16/6
4) Consumer Economics	8/5		12/4	0/1							20/10
5) Business Cycles and Monetary Policy	12/6		4/2	8/0							24/8
6) The Roles of Government	4/0	4/0	16/14	8/0							32/14
7) International Trade and Monetary Policy	0/3		0/8								0/11
8) Comparative Economics	8/1		0/2	4/0							12/3
Totals: PL/M	44/30	4/0	48/42	44/2					4/0		144/74

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Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 16 Campbell Park teachers and 8 Pasadena teachers (counted twice) from Pinellas County.

Subjects teachers were teaching when using economics examples:

Campbell Park/Pasadena Elementary 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	2/4	1/2	4/6	1/2							8/14
2) Productivity and the Market	2/4	3/2	3/6	1/0							9/12
3) Labor Market Demand	1/2	2/0	3/6	1/0							7/8
4) Consumer Economics	2/6	2/4	7/6	1/0	1/0						13/16
5) Business Cycles and Monetary Policy	1/0	1/0	2/2	1/0							5/2
6) The Roles of Government	1/2	7/0	8/6	1/0	1/0	1/0					19/8
7) International Trade and Monetary Policy	1/0	1/0	2/4	1/0							5/4
8) Comparative Economics	1/0	1/0	1/0	1/0							4/0
Totals: CP/P	11/18	18/8	30/36	8/2	2/0	1/0					70/64

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 19 Crystal Lakes Middle School teachers and 19 Everglades Middle School teachers from Broward County.

Subjects teachers were teaching when using economics examples:

Crystal Lakes/Everglades Middle 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	3/2	1/1	3/1	2/0	1/0	2/1	1/1	2/0	0/1	0/1	15/8
2) Productivity and the Market	1/1	1/0	2/1	1/0			1/0	1/0	1/1		8/3
3) Labor Market Demand	1/0	2/0	2/0	1/0		2/0	1/0		1/1	0/1	10/2
4) Consumer Economics	1/2	1/1	3/1	2/0		2/1	1/1	2/0	0/1	0/1	12/8
5) Business Cycles and Monetary Policy	1/1		3/2	1/0				1/0			6/3
6) The Roles of Government	1/1	1/0	2/3	2/1					0/1	0/1	6/7
7) International Trade and Monetary Policy	1/0		1/1			0/1					2/2
8) Comparative Economics	1/1		2/2				1/0	1/0		0/1	5/4
Totals: CL/EG	10/8	6/2	18/11	9/1	1/0	6/3	5/2	7/0	2/5	0/5	64/37

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 8 Walker Junior High teachers (counted twice) and 16 Liberty Junior High teachers from Orange County.

Subjects teachers were teaching when using economics examples:

Walker/Liberty Junior High 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	4/2		4/2	2/0	0/1		0/1	2/2		0/1	12/9
2) Productivity and the Market		0/1	4/1					2/0			6/2
3) Labor Market Demand	2/0		0/1	2/0			0/1	0/2		0/1	4/5
4) Consumer Economics	0/1	0/1	2/1		0/1		0/1	2/2		2/0	6/7
5) Business Cycles and Monetary Policy	2/0		0/1					2/0		0/1	4/2
6) The Roles of Government			2/3		0/1		0/1	2/0		2/1	6/6
7) International Trade and Monetary Policy			4/0								4/0
8) Comparative Economics			2/1				0/1	0/2			2/4
Totals: WA/LI	8/3	0/2	18/10	4/0	0/3		0/5	10/8		4/4	44/35

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 16 Seminole Middle School teachers and 16 Tyrone Middle School teachers from Pinellas County.

Subjects teachers were teaching when using economics examples:

Seminole/Tyrone Middle 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	1/1	1/0	1/0		0/1	1/0		1/0	1/1	0/1	6/4
2) Productivity and the Market	0/1			0/1	0/1		1/1	2/0	2/1	0/1	5/6
3) Labor Market Demand	0/1	1/1	1/1	0/1	0/1		1/1	2/0	2/2		7/8
4) Consumer Economics	1/1	2/1	3/0	1/1	1/0	1/0	1/2	3/0	3/2	0/2	16/9
5) Business Cycles and Monetary Policy	0/1							1/1	1/1		2/3
6) The Roles of Government	1/0	2/0	2/1	1/1	1/0	1/0		1/0	1/1	0/1	10/4
7) International Trade and Monetary Policy		0/1	0/1	0/1							0/3
8) Comparative Economics	1/0	2/0	3/1	1/0	1/0			2/0	2/1		12/2
Totals: SE/TY	4/5	8/8	10/4	3/5	3/3	3/0	3/4	12/1	12/9	0/5	58/39

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 13 Evans Senior High teachers and 13 Oak Ridge teachers from Orange County.

Subjects teachers were teaching when using economics examples:

Evans/Oak Ridge Senior High 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	1/2	1/0	2/0				2/0	0/2	0/2	1/1	7/7
2) Productivity and the Market		1/0	2/0		1/2		2/1			0/1	6/4
3) Labor Market Demand		1/0	2/0		0/2		2/0			0/1	5/3
4) Consumer Economics	1/2	1/0	2/0	1/0			2/1	1/0		1/2	9/5
5) Business Cycles and Monetary Policy	0/2	1/0	2/0				2/0			0/2	5/4
6) The Roles of Government	0/2	1/0	2/0				2/1			1/3	6/6
7) International Trade and Monetary Policy			2/0				2/0			1/0	5/0
8) Comparative Economics			2/0				2/0			0/2	4/2
Totals: EV/OR	2/8	6/0	16/0	1/0	1/4		16/3	1/2	0/2	4/12	47/31

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 16 Hallandale teachers and 8 McArthur teachers (counted twice) from Broward County.

Subjects teachers were teaching when using economics examples:

Hallandale/McArthur Senior High 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	1/4				2/0		1/2	1/0		1/0	6/6
2) Productivity and the Market	0/4	0/2			1/2		0/2				1/10
3) Labor Market Demand	2/2	0/2	1/0		2/0		1/2				6/6
4) Consumer Economics	2/6	1/4	1/0		2/2		1/2			1/0	8/14
5) Business Cycles and Monetary Policy	0/2							1/0			1/2
6) The Roles of Government	0/2	1/4	1/0	1/0			1/2			1/0	5/8
7) International Trade and Monetary Policy	0/2		1/0								1/2
8) Comparative Economics	1/2	0/2	1/0				1/2			1/0	4/6
Totals: HH/MC	6/24	2/14	5/0	1/0	7/4		5/12	2/0		4/0	32/54

Staff Development Instrument - Knowledge of the Economic System

The data summarized below is from a random sample of 22 Dunedin Senior High teachers and 11 St. Petersburg High teachers (counted twice) from Pinellas County.

Subjects teachers were teaching when using economics examples:

Dunedin/St. Petersburg Senior High 8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)	Total
1) Profits	1/4	1/0	0/4		1/0		1/0	4/4			8/12
2) Productivity and the Market	0/2	1/0	0/4	2/0	2/2		2/0	3/4			10/12
3) Labor Market Demand	0/2	2/0	0/4	1/0	1/2		1/0	5/4			10/12
4) Consumer Economics	1/2	1/4	0/4		0/2		2/0	3/2			7/14
5) Business Cycles and Monetary Policy		1/0	0/4					2/2			3/6
6) The Roles of Government	0/2	3/0	1/6	1/0			2/0	1/2			8/10
7) International Trade and Monetary Policy		1/0	0/2		1/0						2/2
8) Comparative Economics		1/0	0/6	1/0				0/2			2/8
Totals: DU/SP	2/12	11/4	1/34	5/0	5/6		8/0	18/20			50/76

Staff Development Instrument - Knowledge of Occupations

Below is a summary of the total number of teacher responses, by school, for each of the thirteen occupational categories.

	Elementary						Middle						Senior High						
	LW (17)	RL (17)	PL (24)	M (24)	CP (16)	P (16)	CL (19)	EG (19)	WA (16)	LI (16)	SE (16)	TY (16)	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)	Total
Construction	5	14	72	20	50	12	14	10	14	17	15	21	13	4	14	8	3	8	314
Manufacturing	48	3	0	0	33	6	9	8	16	11	14	11	8	5	5	8	2	0	187
Retailing/Wholesaling	27	7	12	8	54	14	32	18	36	29	12	12	16	13	8	20	8	12	338
Business/Office/Accounting	52	2	36	7	53	12	19	5	24	12	8	11	19	20	11	16	33	18	358
Banking/Ins./Real Estate/Secur.	9	4	68	0	17	8	6	5	18	14	9	4	23	16	3	6	9	16	235
Mass Communications	67	6	48	7	77	26	23	16	16	11	29	23	11	10	14	24	10	12	430
Entertainment/Arts	24	6	56	11	70	20	12	11	30	5	14	9	15	3	5	12	9	12	324
Personal/Hotel/Restaurant	3	12	4	9	51	18	40	24	22	7	11	11	5	1	10	6	4	4	242
Government/Utilities/Public Serv.	13	20	64	46	75	32	36	25	42	16	21	4	17	3	21	16	7	26	484
Health	28	18	100	40	73	42	26	11	42	5	22	21	11	0	22	12	7	6	486
Science/Technology	2	3	8	6	25	12	25	9	16	6	8	4	13	7	9	10	4	2	169
Farming/Ranching/Natural Res.	18	12	16	11	35	12	21	4	38	4	13	18	3	3	5	2	3	4	222
Transportation	52	7	52	11	62	14	22	9	46	12	19	10	9	11	1	4	2	2	345
Total	348	114	536	176	675	228	285	155	360	149	195	159	163	96	128	144	101	122	4134

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Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 17 Lake Weston Elementary teachers and 17 Rock Lake Elementary teachers in Orange County.

Lake Weston/Rock Lake Elementary

	CONSTRUCTION (E)
0/1	Air Cond. Mechanic
2/2	Architect
0/1	Bricklayer
1/1	Carpenter/Cabinet Maker
1/1	Electrician
1/0	Equipment Operator
0/5	Painter
0/1	Plumber
0/2	Roofer
	Sheet Metal Worker

	MANUFACTURING (E)
4/0	Drafter
4/0	Electronics Technician
3/0	Expediter
4/2	Garment Cutter
4/0	Industrial Maint. Mechanic
4/1	Machinist
4/0	Quality Control Tech.
5/0	Tool and Die Maker
4/0	Upholsterer/Furn. Finisher
4/0	Welder

	RETAILING/WHOLESALING
	Appliance Repair Specialist
	Buyer/Fash. Coord./Model
5/2	Cashier/Sales Clerk
5/3	Display Specialist
5/1	Sales Person, Commission
2/0	Security Person
3/0	Ship/Receive/Inv. Clerk
4/1	Supermarket Stock Worker
	Vending Mach. Route Person
2/0	Wholesaler/Warehouse Oper.

	BUSINESS/OFFICE/ACCOUNTING
8/0	Bookkeeper/Bus. Mach. Oper.
5/0	Certified Public Accountant
4/0	Clerk Typist
4/0	Computer Programmer/Analyst
9/0	Keypunch Operator
4/0	Office Machine Serv. Person
4/0	Payables/Payroll Clerk
5/0	Receivables/Credit Clerk
9/2	Secretary/Stenographer
4/0	Switchboard Operator

	BANKING/INS./R.ESTATE/SECUR.
3/0	Bank President/V. Pres.
	Insurance Adjuster
	Insurance Agent/Sales
3/1	Loan Officer
	Market Research Analyst
	Mortgage Solicitor
0/1	Real Estate Sales/Broker
	Stock Broker
3/2	Teller
	Underwriter

	MASS COMMUNICATIONS
8/0	Ad. Layout/Makeup Spec'st
7/2	Camera Oper./Project'ist
5/0	Copywriter
9/0	Editor
6/0	Offset Press Operator
8/0	Photographer
6/2	Printer
5/0	Publisher
4/0	Recording Engineer
9/2	Reporter

	ENTERTAINMENT/ARTS
	Amusement Park Oper.
0/1	Artist/Sculptor
3/0	Dancer/Singer
3/0	Director/Producer
3/2	Horse Trainer
3/0	Musician/Composer
3/0	Stage Lighting Tech.
3/0	Stage Manager
3/0	Theatre Manager
3/3	Usher/Ticket Taker

	PERSONAL/HOTEL/RESTAURANT
2/1	Cook/Chef/Caterer
1/1	Cosmetologist
0/7	Custodian/Janitor
	Desk Clerk
	Exterminator/Lawn Sprayer
	Hotel/Rest./Franchise Oper.
0/3	Maid/Housekeeper
	Maitre'D/Waiter/Waitress
	Mortician/Undertaker
	Tailor/Sewer/Mender

	GOVERNMENT/UTIL./PUBLIC SERV.
	Counselor/Social Worker
0/4	Firefighter
4/3	Government Employee
3/1	Lawyer
0/1	Military Person
1/4	Police Officer
4/3	Politician
0/3	Teacher/Child Care Worker
1/1	Telephone Equip. Installer
	Water Treatment Operator

	HEALTH
0/1	Dental Para-Auxiliary
5/5	Dentist
3/2	Dietician
3/1	Hospital Para-Auxiliary
3/2	Nurse; LPN/RN
3/0	Optometrist
4/1	Pharmacist
3/3	Physician
1/3	Veterinarian
3/0	X-Ray Technician

	SCIENCE/TECHNOLOGY
	Engineer, Civil/Environ.
	Eng., Civil/Structural
	Engineer, Electrical
	Engineer, Electronic
	Engineer, Industrial
	Engineer, Mechanical
2/0	Engineer, Oceanic
	Engineer, Traffic
0/3	Meteorologist
	Research Analyst

	FARMING/RANCHING/NATURAL RES
	Crop Duster
	Dairy Route Carrier
	Diver
3/0	Farm Equipment Mechanic
9/9	Farmer
3/1	Harvest Hand, Citrus
4/1	Horticulturist/Nursery Worker
0/1	Miner
	Rancher/Animal Breeder
	Water-Well Driller

	TRANSPORTATION (E)
8/1	Airline Pilot
4/0	Auto Body Repairer
4/1	Auto Mechanic
4/0	Auto Rental Agent
5/3	Driver, Truck
4/0	Longshore Worker
3/1	Service Station Attendant
7/1	Stewardess/Steward
7/0	Ticket/Reservation Agent
7/0	Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 6 Pasadena Lakes teahcers (counted 4 times) and 24 Miramar teachers from Broward County.

Pasadena Lakes/Miramar Elementary

CONSTRUCTION (E)

0/2 Air Cond. Mechanic
8/0 Architect
8/2 Bricklayer
4/5 Carpenter/Cabinet Maker
8/2 Electrician
4/0 Equipment Operator
4/4 Painter
20/4 Plumber
8/1 Roofer
4/0 Sheet Metal Worker

MANUFACTURING (E)

Drafter
Electronic Technician
Expediter
Garment Cutter
Industrial Maint. Mechanic
Machinist
Quality Control Tech.
Tool and Die Maker
Upholsterer/Furn. Finisher
Welder

RETAILING/WHOLESALING

Appliance Repair Specialist
4/0 Buyer/Fash. Coord./Model
4/4 Cashier/Sales Clerk
0/1 Display Specialist
0/2 Sales Person, Commission
Security Person
Ship/Receive/Inv. Clerk
4/1 Supermarket Stock Worker
Vending Mach. Route Person
Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING

12/2 Bookkeeper/Bus. Mach. Oper.
Certified Public Accountant
12/0 Clerk Typist
Computer Programmer/Analyst
Keypunch Operator
Office Machine Serv. Person
Payables/Payroll Clerk
Receivables/Credit Clerk
12/5 Secretary/Stenographer
Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

16/0 Bank President/V. Pres.
Insurance Adjuster
Insurance Agent/Sales
16/0 Loan Officer
Market Research Analyst
16/0 Mortgage Solicitor
4/0 Real Estate Sales/Broker
Stock Broker
16/0 Teller
Underwriter

MASS COMMUNICATIONS

Ad. Layout/Makeup Spec'st
Camera Oper./Project'ist
Copywriter
20/2 Editor
Offset Press Operator
12/3 Photographer
Printer
Publisher
Recording Engineer
16/2 Reporter

ENTERTAINMENT/ARTS

Amusement Park Oper.
20/3 Artist/Sculptor
4/2 Dancer/Singer
4/1 Director/Producer
4/1 Horse Trainer
12/1 Musician/Composer
0/2 Stage Lighting Tech.
0/1 Stage Manager
4/0 Theatre Manager
8/0 Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

0/3 Cook/Chef/Caterer
Cosmetologist
4/5 Custodian/Janitor
Desk Clerk
Exterminator/Lawn Sprayer
Hotel/Rest./Franchise Oper.
Maid/Housekeeper
Maitre'D/Waiter/Waitress
Mortician/Undertaker
0/1 Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

12/3 Counselor/Social Worker
16/9 Firefighter
0/1 Government Employee
16/1 Lawyer
0/3 Military Person
12/16 Police Officer
0/2 Politician
8/16 Teacher/Child Care Worker
0/1 Telephone Equip. Installer
Water Treatment Operator

HEALTH

6/2 Dental Para-Auxiliary
20/9 Dentist
0/3 Dietician
0/1 Hospital Para-Auxiliary
20/5 Nurse; LPN/RN
8/4 Optometrist
0/1 Pharmacist
20/8 Physician
16/5 Veterinarian
0/2 X-Ray Technician

SCIENCE/TECHNOLOGY

0/2 Engineer, Civil/Environ.
Eng., Civil/Structural
0/1 Engineer, Electrical
Engineer, Electronic
Engineer, Industrial
Engineer, Mechanical
Engineer, Oceanic
Engineer, Traffic
8/3 Meteorologist
Research Analyst

FARMING/RANCHING/NATURAL RES

0/1 Crop Duster
0/1 Dairy Route Carrier
0/1 Diver
Farm Equipment Mechanic
8/6 Farmer
4/1 Harvest Hand, Citrus
4/1 Horticulturist/Nursery Worke
Miner
Rancher/Animal Breeder
Water-Well Driller

TRANSPORTATION (E)

12/4 Airline Pilot
Auto Body Repairer
4/0 Auto Mechanic
Auto Rental Agent
4/4 Driver, Truck
4/0 Longshore Worker
4/2 Service Station Attendant
20/0 Stewardess/Steward
4/0 Ticket/Reservation Agent
0/[illegible] Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 16 Campbell Park teachers and 8 Pasadena teachers (counted twice) from Pinellas County.

Campbell Park/Pasadena Elementary

CONSTRUCTION (E)

	Air Cond. Mechanic
5/2	Architect
3/0	Bricklayer
3/2	Carpenter/Cabinet Maker
6/2	Electrician
7/2	Equipment Operator
7/2	Painter
6/2	Plumber
2/0	Roofer
1/0	Sheet Metal Worker

MANUFACTURING (E)

3/0	Drafter
7/0	Electronics Technician
2/0	Expediter
2/2	Garment Cutter
3/2	Industrial Maint. Mechanic
10/2	Machinist
2/0	Quality Control Tech.
1/0	Tool and Die Maker
	Upholsterer/Furn. Finisher
3/0	Welder

RETAILING/WHOLESALING

3/2	Appliance Repair Specialist
8/2	Buyer/Fash. Coord./Model
13/4	Cashier/Sales Clerk
8/0	Display Specialist
6/2	Sales Person, Commission
3/2	Security Person
2/0	Ship/Receive/Inv. Clerk
5/2	Supermarket Stock Worker
	Vending Mach. Route Person
6/0	Wholesaler/Warehouse Oper

BUSINESS/OFFICE/ACCOUNTING

11/0	Bookkeeper/Bus. Mach·Oper.
0/2	Certified Public Accountant
8/4	Clerk Typist
5/2	Computer Programmer/Analyst
6/0	Keypunch Operator
4/0	Office Machine Serv. Person
	Payables/Payroll Clerk
	Receivables/Credit Clerk
11/4	Secretary/Stenographer
7/0	Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

0/2	Bank President/V. Pres.
1/0	Insurance Adjuster
2/0	Insurance Agent/Sales
	Loan Officer
6/0	Market Research Analyst
	Mortgage Solicitor
1/2	Real Estate Sales/Broker
0/2	Stock Broker
7/2	Teller
	Underwriter

MASS COMMUNICATIONS

2/0	Ad. Layout/Makeup Spec'st
5/0	Camera Oper./Project'ist
8/4	Copywriter
10/4	Editor
7/0	Offset Press Operator
10/2	Photographer
8/4	Printer
10/6	Publisher
6/0	Recording Engineer
11/6	Reporter

ENTERTAINMENT/ARTS

7/2	Amusement Park Oper.
11/2	Artist/Sculptor
11/2	Dancer/Singer
9/2	Director/Producer
6/0	Horse Trainer
4/8	Musician/Composer
5/0	Stage Lighting Tech.
1/0	Stage Manager
7/2	Theatre Manager
9/2	Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

13/2	Cook/Chef/Caterer
2/2	Cosmetologist
10/6	Custodian/Janitor
1/4	Desk Clerk
	Exterminator/Lawn Sprayer
5/2	Hotel/Rest./Franchise Oper.
9/2	Maid/Housekeeper
3/0	Maitre'D/Waiter/Waitress
	Mortician/Undertaker
8/0	Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

5/2	Counselor/Social Worker
9/2	Firefighter
11/2	Government Employee
11/2	Lawyer
7/0	Military Person
10/4	Police Officer
7/0	Politician
10/2	Teacher/Child Care Worker
5/6	Telephone Equip. Installer
	Water Treatment Operator

HEALTH

7/2	Dental Para-Auxiliary
10/8	Dentist
7/4	Dietician
7/0	Hospital Para-Auxiliary
11/4	Nurse; LPN/RN
4/8	Optometrist
5/2	Pharmacist
9/10	Physician
9/2	Veterinarian
7/2	X-Ray Technician

SCIENCE/TECHNOLOGY

1/0	Engineer, Civil/Environ.
1/0	Eng., Civil/Structural
2/2	Engineer, Electrical
1/2	Engineer, Electronic
2/2	Engineer, Industrial
2/2	Engineer, Mechanical
4/2	Engineer, Oceanic
2/0	Engineer, Traffic
6/2	Meteorologist
4/0	Research Analyst

FARMING/RANCHING/NATURAL RES

1/0	Crop Duster
4/2	Dairy Route Carrier
3/2	Diver
1/0	Farm Equipment Mechanic
13/2	Farmer
1/2	Harvest Hand, Citrus
7/0	Horticulturist/Nursery Worke
1/2	Miner
4/2	Rancher/Animal Breeder
	Water-Well Driller

TRANSPORTATION (E)

14/2	Airline Pilot
2/2	Auto Body Repairer
8/2	Auto Mechanic
1/0	Auto Rental Agent
9/2	Driver, Truck
	Longshore Worker
9/2	Service Station Attendant
7/2	Stewardess/Steward
8/0	Ticket/Reservation Agent
4/2	Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 19 Crystal Lakes Middle School teachers and 19 Everglades Middle School teachers from Broward County.

Crystal Lakes/Everglades Middle

CONSTRUCTION (E)

Air Cond. Mechanic
3/1 Architect
0/1 Bricklayer
2/1 Carpenter/Cabinet Maker
4/2 Electrician
1/2 Equipment Operator
3/1 Painter
1/1 Plumber
0/1 Roofer
Sheet Metal Worker

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MANUFACTURING (E)

2/1 Drafter
3/0 Electronics Technician
0/1 Expediter
1/2 Garment Cutter
0/1 Industrial Maint. Mechanic
1/1 Machinist
Quality Control Tech.
1/0 Tool and Die Maker
1/2 Upholsterer/Furn. Finisher
Welder

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RETAILING/WHOLESALING

4/0 Appliance Repair Specialist
3/3 Buyer/Fash. Coord./Model
4/4 Cashier/Sales Clerk
2/2 Display Specialist
5/4 Sales Person, Commission
13 3/1 Security Person
2/1 Ship/Receive/Inv. Clerk
6/3 Supermarket Stock Worker
1/0 Vending Mach. Route Person
2/0 Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING

3/1 Bookkeeper/Bus. Mach. Oper.
2/0 Certified Public Accountant
3/1 Clerk Typist
2/0 Computer Programmer/Analyst
2/0 Keypunch Operator
Office Machine Serv. Person
1/1 Payables/Payroll Clerk
1/0 Receivables/Credit Clerk
3/1 Secretary/Stenographer
2/1 Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

0/1 Bank President/V. Pres.
0/1 Insurance Adjuster
1/1 Insurance Agent/Sales
0/1 Loan Officer
1/0 Market Research Analyst
Mortgage Solicitor
2/0 Real Estate Sales/Broker
1/0 Stock Broker
1/1 Teller
Underwriter

MASS COMMUNICATIONS

1/1 Ad. Layout/Makeup Spec'st
1/2 Camera Oper./Project'ist
2/1 Copywriter
4/4 Editor
Offset Press Operator
2/3 Photographer
3/1 Printer
4/2 Publisher
Recording Engineer
6/2 Reporter

ENTERTAINMENT/ARTS

1/0 Amusement Park Oper.
Artist/Sculptor
2/1 Dancer/Singer
1/2 Director/Producer
2/1 Horse Trainer
1/2 Musician/Composer
1/1 Stage Lighting Tech.
1/3 Stage Manager
1/0 Theatre Manager
2/1 Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

6/7 Cook/Chef/Caterer
3/3 Cosmetologist
4/2 Custodian/Janitor
4/1 Desk Clerk
5/0 Exterminator/Lawn Sprayer
5/3 Hotel/Rest./Franchise Oper.
3/3 Maid/Housekeeper
4/3 Maitre'D/Waiter/Waitress
3/0 Mortician/Undertaker
3/2 Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

5/1 Counselor/Social Worker
4/1 Firefighter
4/4 Government Employee
3/3 Lawyer
4/4 Military Person
3/3 Police Officer
2/3 Politician
6/6 Teacher/Child Care Worker
2/0 Telephone Equip. Installer
3/0 Water Treatment Operator

HEALTH

3/1 Dental Para-Auxiliary
3/1 Dentist
4/5 Dietician
2/0 Hospital Para-Auxiliary
3/0 Nurse; LPN/RN
3/0 Optometrist
5/0 Pharmacist
2/3 Physician
2/1 Veterinarian
1/0 X-Ray Technician

SCIENCE/TECHNOLOGY

2/2 Engineer, Civil/Environ.
1/1 Eng., Civil/Structural
5/0 Engineer, Electrical
1/0 Engineer, Electronic
1/0 Engineer, Industrial
2/1 Engineer, Mechanical
4/0 Engineer, Oceanic
2/1 Engineer, Traffic
4/3 Meteorologist
3/1 Research Analyst

FARMING/RANCHING/NATURAL RES

1/1 Crop Duster
0/1 Dairy Route Carrier
2/0 Diver
2/0 Farm Equipment Mechanic
7/1 Farmer
2/1 Harvest Hand, Citrus
2/0 Horticulturist/Nursery Worke
1/0 Miner
4/0 Rancher/Animal Breeder
Water-Well Driller

TRANSPORTATION (E)

4/3 Airline Pilot
4/1 Auto Body Repairer
3/0 Auto Mechanic
Auto Rental Agent
2/1 Driver, Truck
Longshore Worker
2/1 Service Station Attendant
4/2 Stewardess/Steward
1/0 Ticket/Reservation Agent
[illegible] Travel Agent

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Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 8 Walker Junior High teachers (counted twice) and 16 Liberty Junior High teachers from Orange County.

Walker/Liberty Junior High

CONSTRUCTION (E)

0/2	Air Cond. Mechanic
4/2	Architect
0/1	Bricklayer
2/2	Carpenter/Cabinet Maker
2/2	Electrician
4/1	Equipment Operator
2/1	Painter
0/1	Plumber
0/2	Roofer
0/3	Sheet Metal Worker

MANUFACTURING (E)

8/1	Drafter
4/1	Electronics Technician
0/1	Expediter
0/2	Garment Cutter
2/1	Industrial Maint. Mechanic
2/1	Machinist
0/1	Quality Control Tech.
0/1	Tool and Die Maker
0/1	Upholsterer/Furn. Finisher
0/1	Welder

RETAILING/WHOLESALING

2/0	Appliance Repair Specialist
6/4	Buyer/Fash. Coord./Model
6/5	Cashier/Sales Clerk
2/0	Display Specialist
10/5	Sales Person, Commission
2/2	Security Person
2/3	Ship/Receive/Inv. Clerk
2/4	Supermarket Stock Worker
2/3	Vending Mach. Route Person
2/3	Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING

4/2	Bookkeeper/Bus. Mach. Oper.
2/2	Certified Public Accountant
0/2	Clerk Typist
4/1	Computer Programmer/Analyst
2/0	Keypunch Operator
2/0	Office Machine Serv. Person
4/1	Payables/Payroll Clerk
4/1	Receivables/Credit Clerk
2/1	Secretary/Stenographer
0/2	Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

2/2	Bank President/V. Pres.
2/2	Insurance Adjuster
2/1	Insurance Agent/Sales
2/1	Loan Officer
0/1	Market Research Analyst
2/1	Mortgage Solicitor
6/1	Real Estate Sales/Broker
0/2	Stock Broker
2/2	Teller
0/1	Underwriter

MASS COMMUNICATIONS

2/1	Ad. Layout/Makeup Spec'st
2/1	Camera Oper./Project'ist
2/2	Copywriter
2/1	Editor
0/1	Offset Press Operator
4/3	Photographer
	Printer
0/1	Publisher
	Recording Engineer
4/1	Reporter

ENTERTAINMENT/ARTS

2/1	Amusement Park Oper.
8/0	Artist/Sculptor
2/0	Dancer/Singer
	Director/Producer
4/0	Horse Trainer
4/1	Musician/Composer
2/1	Stage Lighting Tech.
2/1	Stage Manager
4/0	Theatre Manager
2/1	Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

8/1	Cook/Chef/Caterer
2/1	Cosmetologist
2/0	Custodian/Janitor
2/0	Desk Clerk
	Exterminator/Lawn Sprayer
2/1	Hotel/Rest./Franchise Oper.
2/1	Maid/Housekeeper
2/1	Maitre'D/Waiter/Waitress
2/0	Mortician/Undertaker
0/2	Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

2/2	Counselor/Social Worker
4/1	Firefighter
6/2	Government Employee
4/2	Lawyer
6/1	Military Person
6/2	Police Officer
4/2	Politician
6/2	Teacher/Child Care Worker
0/2	Telephone Equip. Installer
4/0	Water Treatment Operator

HEALTH

2/0	Dental Para-Auxiliary
6/1	Dentist
0/1	Dietician
	Hospital Para-Auxiliary
8/1	Nurse; LPN/RN
4/1	Optometrist
4/0	Pharmacist
8/1	Physician
8/0	Veterinarian
2/0	X-Ray Technician

SCIENCE/TECHNOLOGY

2/0	Engineer, Civil/Environ.
0/1	Eng., Civil/Structural
0/1	Engineer, Electrical
0/1	Engineer, Electronic
0/1	Engineer, Industrial
0/1	Engineer, Mechanical
4/0	Engineer, Oceanic
	Engineer, Traffic
8/1	Meteorologist
2/0	Research Analyst

FARMING/RANCHING/NATURAL RES

2/0	Crop Duster
2/0	Dairy Route Carrier
2/0	Diver
2/0	Farm Equipment Mechanic
8/1	Farmer
6/2	Harvest Hand, Citrus
4/1	Horticulturist/Nursery Worke
4/0	Miner
6/0	Rancher/Animal Breeder
2/0	Water-Well Driller

TRANSPORTATION (E)

12/1	Airline Pilot
4/2	Auto Body Repairer
6/1	Auto Mechanic
0/1	Auto Rental Agent
4/2	Driver, Truck
	Longshore Worker
2/0	Service Station Attendant
8/2	Stewardess/Steward
4/2	Ticket/Reservation Agent
6/1	Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 16 Seminole Middle School teachers and 16 Tyrone Middle School teachers from Pinellas County.

Seminole/Tyrone Middle

CONSTRUCTION (E)

1/1 Air Cond. Mechanic
1/3 Architect
1/1 Bricklayer
8/4 Carpenter/Cabinet Maker
2/3 Electrician
8/0 Equipment Operator
1/3 Painter
2/4 Plumber
2/0 Roofer
221 1/2 Sheet Metal Worker

MANUFACTURING (E)

1/4 Drafter
2/0 Electronics Technician
Expediter
1/1 Garment Cutter
2/0 Industrial Maint. Mechanic
2/1 Machinist
1/0 Quality Control Tech.
2/2 Tool and Die Maker
1/2 Upholsterer/Furn. Finisher
2/1 Welder

147 RETAILING/WHOLESALING

Appliance Repair Specialist
1/1 Buyer/Fash. Coord./Model
3/2 Cashier/Sales Clerk
1/2 Display Specialist
1/4 Sales Person, Commission
1/0 Security Person
21 1/1 Ship/Receive/Inv. Clerk
2/1 Supermarket Stock Worker
Vending Mach. Route Person
2/1 Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING

0/2 Bookkeeper/Bus. Mach. Oper.
Certified Public Accountant
2/1 Clerk Typist
1/2 Computer Programmer/Analyst
1/1 Keypunch Operator
1/1 Office Machine Serv. Person
0/1 Payables/Payroll Clerk
0/1 Receivables/Credit Clerk
3/2 Secretary/Stenographer
Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

2/1 Bank President/V. Pres.
1/0 Insurance Adjuster
1/1 Insurance Agent/Sales
1/0 Loan Officer
1/0 Market Research Analyst
1/0 Mortgage Solicitor
1/1 Real Estate Sales/Broker
Stock Broker
1/1 Teller
Underwriter

MASS COMMUNICATIONS

3/2 Ad. Layout/Makeup Spec'st
1/1 Camera Oper./Project'ist
2/3 Copywriter
4/2 Editor
2/2 Offset Press Operator
5/3 Photographer
5/3 Printer
3/2 Publisher
Recording Engineer
4/5 Reporter

ENTERTAINMENT/ARTS

Amusement Park Oper.
3/4 Artist/Sculptor
2/2 Dancer/Singer
3/0 Director/Producer
0/1 Horse Trainer
2/0 Musician/Composer
Stage Lighting Tech.
2/1 Stage Manager
1/0 Theatre Manager
1/1 Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

2/1 Cook/Chef/Caterer
2/1 Cosmetologist
1/2 Custodian/Janitor
1/0 Desk Clerk
0/1 Exterminator/Lawn Sprayer
2/1 Hotel/Rest./Franchise Oper.
1/3 Maid/Housekeeper
1/1 Maitre'D/Waiter/Waitress
1/0 Mortician/Undertaker
0/1 Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

1/0 Counselor/Social Worker
2/0 Firefighter
2/0 Government Employee
1/0 Lawyer
3/1 Military Person
3/0 Police Officer
2/0 Politician
5/2 Teacher/Child Care Worker
1/0 Telephone Equip. Installer
1/1 Water Treatment Operator

HEALTH

2/1 Dental Para-Auxiliary
2/2 Dentist
1/2 Dietician
2/2 Hospital Para-Auxiliary
3/2 Nurse; LPN/RN
2/2 Optometrist
2/3 Pharmacist
3/2 Physician
3/4 Veterinarian
2/1 X-Ray Technician

SCIENCE/TECHNOLOGY

1/1 Engineer, Civil/Environ.
1/0 Eng., Civil/Structural
1/0 Engineer, Electrical
1/0 Engineer, Electronic
1/0 Engineer, Industrial
1/0 Engineer, Mechanical
1/1 Engineer, Oceanic
Engineer, Traffic
0/1 Meteorologist
1/1 Research Analyst

FARMING/RANCHING/NATURAL RES

1/1 Crop Duster
0/1 Dairy Route Carrier
8/1 Diver
1/1 Farm Equipment Mechanic
3/3 Farmer
1/3 Harvest Hand, Citrus
2/3 Horticulturist/Nursery Worker
0/1 Miner
3/3 Rancher/Animal Breeder
0/1 Water-Well Driller

TRANSPORTATION (E)

3/1 Airline Pilot
3/1 Auto Body Repairer
4/2 Auto Mechanic
Auto Rental Agent 248
2/2 Driver, Truck
Longshore Worker
2/0 Service Station Attendant
2/2 Stewardess/Steward
2/1 Ticket/Reservation Agent
1/0 Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 13 Evans Senior High teachers and 13 Oak Ridge teachers from Orange County.

Evans/Oak Ridge Senior High

CONSTRUCTION (E)
2/0 Air Cond. Mechanic
5/3 Architect
1/0 Bricklayer
1/1 Carpenter/Cabinet Maker
1/0 Electrician
Equipment Operator
3/0 Painter
Plumber
Roofer
1/0 Sheet Metal Worker

MANUFACTURING (E)
2/3 Drafter
3/0 Electronics Technician
Expediter
Garment Cutter
1/0 Industrial Maint. Mechanic
1/2 Machinist
Quality Control Tech.
Tool and Die Maker
1/0 Upholsterer/Furn. Finisher
Welder

RETAILING/WHOLESALING
Appliance Repair Specialist
3/2 Buyer/Fash. Coord./Model
3/2 Cashier/Sales Clerk
1/0 Display Specialist
3/3 Sales Person, Commission
1/0 Security Person
2/2 Ship/Receive/Inv. Clerk
1/2 Supermarket Stock Worker
1/1 Vending Mach. Route Person
1/2 Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING
1/4 Bookkeeper/Bus. Mach. Oper.
3/2 Certified Public Accountant
3/2 Clerk Typist
2/2 Computer Programmer/Analyst
1/2 Keypunch Operator
1/2 Office Machine Serv. Person
3/2 Payables/Payroll Clerk
3/2 Receivables/Credit Clerk
1/2 Secretary/Stenographer
1/0 Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.
0/2 Bank President/V. Pres.
2/2 Insurance Adjuster
4/2 Insurance Agent/Sales
4/2 Loan Officer
3/0 Market Research Analyst
0/2 Mortgage Solicitor
3/2 Real Estate Sales/Broker
3/2 Stock Broker
3/2 Teller
1/0 Underwriter

MASS COMMUNICATIONS
2/2 Ad. Layout/Makeup Spec'st
1/0 Camera Oper./Project'ist
1/0 Copywriter
2/0 Editor
0/2 Offset Press Operator
1/3 Photographer
1/2 Printer
1/0 Publisher
0/1 Recording Engineer
2/0 Reporter

ENTERTAINMENT/ARTS
Amusement Park Oper.
3/2 Artist/Sculptor
2/0 Dancer/Singer
2/0 Director/Producer
Horse Trainer
1/0 Musician/Composer
2/0 Stage Lighting Tech.
2/0 Stage Manager
1/0 Theatre Manager
2/0 Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT
2/0 Cook/Chef/Caterer
1/0 Cosmetologist
Custodian/Janitor
Desk Clerk
Exterminator/Lawn Sprayer
1/0 Hotel/Rest./Franchise Oper.
1/0 Maid/Housekeeper
1/1 Maitre'D/Waiter/Waitress
Mortician/Undertaker
Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.
2/0 Counselor/Social Worker
Firefighter
2/1 Government Employee
1/0 Lawyer
2/1 Military Person
5/0 Police Officer
Politician
3/1 Teacher/Child Care Worker
2/0 Telephone Equip. Installer
Water Treatment Operator

HEALTH
Dental Para-Auxiliary
1/0 Dentist
1/0 Dietician
1/0 Hospital Para-Auxiliary
2/0 Nurse; LPN/RN
Optometrist
1/0 Pharmacist
2/0 Physician
Veterinarian
2/0 X-Ray Technician

SCIENCE/TECHNOLOGY
1/0 Engineer, Civil/Environ.
1/2 Eng., Civil/Structural
1/0 Engineer, Electrical
1/1 Engineer, Electronic
2/3 Engineer, Industrial
2/0 Engineer, Mechanical
2/0 Engineer, Oceanic
Engineer, Traffic
1/1 Meteorologist
2/1 Research Analyst

FARMING/RANCHING/NATURAL RES
Crop Duster
Dairy Route Carrier
1/3 Diver
Farm Equipment Mechanic
1/0 Farmer
Harvest Hand, Citrus
1/0 Horticulturist/Nursery Worker
Miner
Rancher/Animal Breeder
Water-Well Driller

TRANSPORTATION (E)
2/1 Airline Pilot
0/1 Auto Body Repairer
1/1 Auto Mechanic
1/3 Auto Rental Agent
0/3 Driver, Truck
1/0 Longshore Worker
Service Station Attendant
2/0 Stewardess/Steward
1/0 Ticket/Reservation Agent
1/2 Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 16 Hallandale Senior High teachers and 8 McArthur teachers (counted twice) from Broward County.

Hallandale/McArthur Senior High

CONSTRUCTION (E)

- 2/0 Air Cond. Mechanic
- 2/4 Architect
- ___ Bricklayer
- 2/0 Carpenter/Cabinet Maker
- 2/2 Electrician
- 2/0 Equipment Operator
- 2/2 Painter
- 1/0 Plumber
- ___ Roofer
- 1/0 Sheet Metal Worker

MANUFACTURING (E)

- 1/4 Drafter
- 1/2 Electronics Technician
- ___ Expediter
- ___ Garment Cutter
- 1/0 Industrial Maint. Mechanic
- 1/0 Machinist
- ___ Quality Control Tech.
- 1/2 Tool and Die Maker
- ___ Upholsterer/Furn. Finisher
- ___ Welder

RETAILING/WHOLESALING

- 1/0 Appliance Repair Specialist
- 0/4 Buyer/Fash. Coord./Model
- 3/6 Cashier/Sales Clerk
- 1/6 Display Specialist
- 1/4 Sales Person, Commission
- ___ Security Person
- 1/0 Ship/Receive/Inv. Clerk
- 1/0 Supermarket Stock Worker
- ___ Vending Mach. Route Person
- ___ Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING

- 2/4 Bookkeeper/Bus. Mach. Oper.
- 1/2 Certified Public Accountant
- 1/2 Clerk Typist
- 1/4 Computer Programmer/Analyst
- 1/2 Keypunch Operator
- 1/0 Office Machine Serv. Person
- 1/2 Payables/Payroll Clerk
- 1/0 Receivables/Credit Clerk
- 1/0 Secretary/Stenographer
- 1/0 Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

- 1/0 Bank President/V. Pres.
- ___ Insurance Adjuster
- ___ Insurance Agent/Sales
- 1/2 Loan Officer
- ___ Market Research Analyst
- ___ Mortgage Solicitor
- 1/0 Real Estate Sales/Broker
- ___ Stock Broker
- 0/4 Teller
- ___ Underwriter

MASS COMMUNICATIONS

- 2/4 Ad. Layout/Makeup Spec'st
- 1/2 Camera Oper./Project'ist
- 0/2 Copywriter
- 2/2 Editor
- ___ Offset Press Operator
- 3/2 Photographer
- 3/4 Printer
- 1/4 Publisher
- 0/2 Recording Engineer
- 2/2 Reporter

ENTERTAINMENT/ARTS

- ___ Amusement Park Oper.
- 1/4 Artist/Sculptor
- 2/0 Dancer/Singer
- ___ Director/Producer
- 1/0 Horse Trainer
- 1/0 Musician/Composer
- 0/2 Stage Lighting Tech.
- 0/2 Stage Manager
- 0/2 Theatre Manager
- 0/2 Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

- 2/0 Cook/Chef/Caterer
- 2/0 Cosmetologist
- 1/0 Custodian/Janitor
- ___ Desk Clerk
- ___ Exterminator/Lawn Sprayer
- 1/2 Hotel/Rest./Franchise Oper.
- 1/2 Maid/Housekeeper
- 2/0 Maitre'D/Waiter/Waitress
- 1/0 Mortician/Undertaker
- 0/2 Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

- ___ Counselor/Social Worker
- 3/0 Firefighter
- 3/0 Government Employee
- 3/4 Lawyer
- 4/0 Military Person
- 2/4 Police Officer
- 2/0 Politician
- 3/8 Teacher/Child Care Worker
- ___ Telephone Equip. Installer
- 1/0 Water Treatment Operator

HEALTH

- 1/0 Dental Para-Auxiliary
- 2/0 Dentist
- 2/0 Dietician
- 2/0 Hospital Para-Auxiliary
- 3/4 Nurse; LPN/RN
- 2/0 Optometrist
- 1/2 Pharmacist
- 2/4 Physician
- 4/2 Veterinarian
- 2/0 X-Ray Technician

SCIENCE/TECHNOLOGY

- 1/0 Engineer, Civil/Environ.
- 1/0 Eng., Civil/Structural
- 1/0 Engineer, Electrical
- 0/2 Engineer, Electronic
- 1/0 Engineer, Industrial
- 1/2 Engineer, Mechanical
- 1/2 Engineer, Oceanic
- ___ Engineer, Traffic
- 2/2 Meteorologist
- 1/2 Research Analyst

FARMING/RANCHING/NATURAL RES

- ___ Crop Duster
- ___ Dairy Route Carrier
- 3/0 Diver
- ___ Farm Equipment Mechanic
- 0/2 Farmer
- ___ Harvest Hand, Citrus
- 1/0 Horticulturist/Nursery Worker
- ___ Miner
- 1/0 Rancher/Animal Breeder
- ___ Water-Well Driller

TRANSPORTATION (E)

- ___ Airline Pilot
- ___ Auto Body Repairer
- ___ Auto Mechanic
- ___ Auto Rental Agent
- ___ Driver, Truck
- ___ Longshore Worker
- ___ Service Station Attendant
- 1/0 Stewardess/Steward
- 0/2 Ticket/Reservation Agent
- 0/2 Travel Agent

Staff Development Instrument - Knowledge of Occupations

The data summarized below is from a random sample of 22 Dunedin Senior High teachers and 11 St. Petersburg High teachers (counted twice) from Pinellas County.

Dunedin/St. Petersburg Senior High

CONSTRUCTION (E)

- ___ Air Cond. Mechanic
- 1/4 Architect
- 0/4 Bricklayer
- 1/0 Carpenter/Cabinet Maker
- ___ Electrician
- ___ Equipment Operator
- 1/0 Painter
- ___ Plumber
- ___ Roofer
- ___ Sheet Metal Worker

MANUFACTURING (E)

- ___ Drafter
- 1/0 Electronics Technician
- ___ Expediter
- ___ Garment Cutter
- ___ Industrial Maint. Mechanic
- ___ Machinist
- 1/0 Quality Control Tech.
- ___ Tool and Die Maker
- ___ Upholsterer/Furn. Finisher
- ___ Welder

RETAILING/WHOLESALING

- ___ Appliance Repair Specialist
- 2/2 Buyer/Fash. Coord./Model
- 3/4 Cashier/Sales Clerk
- ___ Display Specialist
- 2/4 Sales Person, Commission
- ___ Security Person
- 1/2 Ship/Receive/Inv. Clerk
- 0/2 Supermarket Stock Worker
- ___ Vending Mach. Route Person
- 0/2 Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING

- 5/4 Bookkeeper/Bus. Mach. Oper.
- 1/2 Certified Public Accountant
- 6/2 Clerk Typist
- 2/2 Computer Programmer/Analyst
- 2/0 Keypunch Operator
- 2/0 Office Machine Serv. Person
- 4/2 Payables/Payroll Clerk
- 4/2 Receivables/Credit Clerk
- 5/2 Secretary/Stenographer
- 2/2 Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.

- 1/0 Bank President/V. Pres.
- 1/2 Insurance Adjuster
- 1/2 Insurance Agent/Sales
- 1/2 Loan Officer
- ___ Market Research Analyst
- ___ Mortgage Solicitor
- 0/2 Real Estate Sales/Broker
- 1/4 Stock Broker
- 3/2 Teller
- 1/2 Underwriter

MASS COMMUNICATIONS

- 1/8 Ad. Layout/Makeup Spec'st
- 1/0 Camera Oper./Project'ist
- 1/0 Copywriter
- 3/0 Editor
- 1/0 Offset Press Operator
- 1/0 Photographer
- 3/0 Printer
- ___ Publisher
- ___ Recording Engineer
- 1/4 Reporter

ENTERTAINMENT/ARTS

- ___ Amusement Park Oper.
- 2/6 Artist/Sculptor
- 1/2 Dancer/Singer
- 1/4 Director/Producer
- ___ Horse Trainer
- 1/0 Musician/Composer
- 1/0 Stage Lighting Tech.
- 1/0 Stage Manager
- 1/0 Theatre Manager
- 1/0 Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT

- 1/0 Cook/Chef/Caterer
- 1/2 Cosmetologist
- ___ Custodian/Janitor
- 1/0 Desk Clerk
- ___ Exterminator/Lawn Sprayer
- ___ Hotel/Rest./Franchise Oper.
- ___ Maid/Housekeeper
- ___ Maitre'D/Waiter/Waitress
- 0/2 Mortician/Undertaker
- 1/0 Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.

- 1/4 Counselor/Social Worker
- 0/4 Firefighter
- 2/2 Government Employee
- 0/6 Lawyer
- ___ Military Person
- 0/4 Police Officer
- 0/2 Politician
- 4/8 Teacher/Child Care Worker
- 1/0 Telephone Equip. Installer
- ___ Water Treatment Operator

HEALTH

- ___ Dental Para-Auxiliary
- 1/0 Dentist
- 1/2 Dietician
- 1/0 Hospital Para-Auxiliary
- 1/0 Nurse; LPN/RN
- ___ Optometrist
- 1/2 Pharmacist
- 1/2 Physician
- 1/0 Veterinarian
- ___ X-Ray Technician

SCIENCE/TECHNOLOGY

- 1/0 Engineer, Civil/Environ.
- ___ Eng., Civil/Structural
- ___ Engineer, Electrical
- 1/0 Engineer, Electronic
- ___ Engineer, Industrial
- ___ Engineer, Mechanical
- 1/0 Engineer, Oceanic
- ___ Engineer, Traffic
- ___ Meteorologist
- 1/2 Research Analyst

FARMING/RANCHING/NATURAL RES

- ___ Crop Duster
- ___ Dairy Route Carrier
- ___ Diver
- ___ Farm Equipment Mechanic
- 1/0 Farmer
- ___ Harvest Hand, Citrus
- 1/0 Horticulturist/Nursery Worker
- ___ Miner
- 1/4 Rancher/Animal Breeder
- ___ Water-Well Driller

TRANSPORTATION (E)

- ___ Airline Pilot
- ___ Auto Body Repairer
- ___ Auto Mechanic
- ___ Auto Rental Agent
- ___ Driver, Truck
- ___ Longshore Worker
- ___ Service Station Attendant
- 1/2 Stewardess/Steward
- 1/0 Ticket/Reservation Agent
- ___ Travel Agent

Staff Development Instrument - Employment-Entry Skills

Below is a summary of the total number of senior high teacher responses, by school, for each of the thirteen occupational categories.

	Orange		Broward		Pinellas		Total
	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)	
Construction	6	12	2	2	3	0	25
Manufacturing	4	16	6	14	9	14	63
Retailing/Wholesaling	26	22	4	10	8	14	84
Business/Office/Accounting	24	38	12	22	35	28	159
Banking/Insurance/Real Estate/Securities	23	29	11	16	13	39	131
Mass Communications	25	14	16	46	23	38	162
Entertainment/Arts	3	11	12	38	26	42	132
Personal/Hotel/Restaurant Services	12	6	2	6	7	4	37
Government/Utilities/Public Services	14	5	6	30	22	22	99
Health	11	4	12	6	11	8	52
Science/Technology	15	7	25	12	26	18	103
Farming/Ranching/Natural Resources	4	1	6	0	2	0	13
Transportation	6	3	3	2	5	2	21
Total	173	168	117	204	190	229	1081

Staff Development Instrument - Employment-Entry Skills

The data summarized below is from a random sample of 13 Evans Senior High teachers and 13 Oak Ridge Senior High teachers from Orange County.

Evans/Oak Ridge Senior High

___ Drive heavy equipment, such as a tractor, bulldozer, grader, etc.
___ Correct defects by rubbing, chiseling, grinding, sanding.
Erect a scaffold.
3/1 Cover surfaces with paints, varnish, stain, enamel.
___ Cut and lay tiles and terra cotta.
0/1 Pour and smooth concrete.
0/1 Erect forms for pouring concrete.
___ Mix mortar and set stones or bricks using a trowel.
___ Install fuses, conduits, and switches.
___ Install plumbing and fixtures using a threading die.
0/1 Erect frame walls from 2 x 4 boards, using a hammer and saw.
___ Set door and window frames; install cabinets.
1/2 Select building materials for a job.
1/3 Estimate the cost of materials for a job.
1/3 Make drawings of a building to scale.

1/6 Sketch simple and complex devices.
0/4 Make drawings of a set of parts to scale.
1/0 Write purchase orders for vendor parts.
1/2 Transfer a pattern to materials.
0/2 Fire pottery in a kiln.
___ Machine metals to specifications.

___ Weld metal joints or heat treat metal to specifications.
1/0 Make a sand mold and produce a casting.
___ Mold fiberglass with metal using epoxies.
Solder electronic parts.
0/1 Make or assemble parts from programmed directions, within specifications.
0/1 Arrange the layout of work on an assembly line.
___ Expedite parts and materials for continuous production.
___ Inspect parts for size, finish and defects.
___ Test a product within specifications, using a voltmeter or a pressure guage.

2/2 Arrange window displays.
Make appliance repairs.
1/0 Operate a cash register and give correct change.
3/4 Give credits for items returned and make out credit forms.
___ Set up a maximum dollar purchase credit checking system and screen credit applications.
2/2 Take orders for products by telephone, and quote accurate delivery dates.
2/2 Compare values on a cost-per-unit basis.
1/1 Train workers to demonstrate new products and assist customers.

4/1 Gather information about a competitors product.
1/2 Select and mark-down merchandise for sale.
0/2 Keep updated files on incoming shipments and code incoming merchandise.
0/2 Order new goods based on a computer report of items sold.
2/2 Make periodic inventory counts and compute inventory values.
3/2 Compute an invoice and bill of lading.
5/0 Promote a profit-making event.

4/4 Write business letters.
0/2 Take dictation in shorthand and transcribe into readable copy.
1/1 Type rough drafts of letters and reports from a dictating machine.
0/1 Keep a well-organized correspondence file.
1/0 Run a switchboard; sort and distribute mail.
3/5 Operate a 10-key calculating machine.
1/3 Prepare a budget and estimate when to cut off spending to remain within budget.
1/4 Record business transactions as debits and credits.
4/4 File an Income Tax Form.
3/4 Produce payroll checks, withholding and social security records.
1/3 Keep an accurate accounts receivable file.
___ Keypunch alphanumeric data into punched cards and edit coded work using a verifier.

Evans/Oak Ridge Senior High

__ Program a computer, using a systems flowchart and operate a sorter, collator and reproducer.
2/2 Express sales versus costs with charts or graphs.
3/5 Produce a balance sheet and profit/loss statement.

1/4 Cash payroll and personal checks.
5/4 Balance a checking or savings account.
0/3 Compare the rate of return on different investments.
1/0 Apply for and use credit cards.
2/2 Evaluate the best insurance offered by competing companies.
2/0 File an insurance claim.
3/2 Explain the need for life insurance.
3/3 Accept, count, and record withdrawals and deposits.
3/5 Balance receipts and payouts.
1/2 Use a multiple-listing book.
__ Compare the profits of various industries.
0/2 Examine the records of a business for accuracy.
1/0 Buy and sell stocks.
1/0 Apply for a loan.
0/2 Compute interest and collect loan payments.

2/2 Write or rewrite news articles with a typewriter, and proof copy.
4/2 Write a review of a book, play, or movie.
1/0 Develop advertising layouts which introduce new products.
2/1 Write advertisements or slogans.
2/0 Write the lead for a news story.
3/1 Develop film and enlarge prints.

2/1 Select pictures and write captions for publication.
1/3 Determine newspaper layout of pictures and copy.
1/1 Produce a school newspaper, radio or TV program.
3/2 Run a 16mm projector, video tape or slide type machine.
Use an offset printer.
0/1 Transfer voices or music from one tape to another.
Sell classified ads.
1/0 Compute advertising rates high enough to make a profit.
4/0 Conduct an interview.

0/3 Make sketches for a book.
2/2 Paint a landscape.
0/2 Build and paint stage props.
__ Apply makeup to actors or actresses.
__ Perform acrobatic stunts.
Imitate characters.
0/1 Act in a stage play.
Direct a stage play.
1/2 Carve a statue from clay.
__ Develop an original dance or gymnastic routine for a stage play.
0/1 Write a verse or poem for a greeting card.
__ Play a musical instrument in a band or orchestra.
__ Conduct an orchestra or band.
__ Plan special lighting effects.
__ Write the words for a song.

__ Clean and purify a pool.
Plant new grass for lawns.
1/0 Hold an exercise class for weight reducers.
__ Design wigs, fit hair pieces.
__ Run a self-service laundry.

1/0 Make alterations on clothes and replace zippers.
Kill termites, bugs, or vermin.
0/1 Decorate rooms with antiques or knick knacks.
Register guests in a hotel.
0/1 Cut and shape hair.
__ Give facial, scalp massage and manicure.
0/1 Strip tables and reset for the next meal quickly, using correct place setting rules.
0/1 Prepare salads, desserts, entrees, vegetables, and hot breads.
0/1 Plan the details of a menu.
0/1 Set up for catering to a party.

__ Read a utilities meter.
__ Identify pollution control violations
__ Gather information from the public records.
__ Make a record of a traffic accident.
__ Inform people as to their constitutional rights and responsibilities.
3/1 Organize a club.
3/1 Speak for a group whom you represent.
__ Locate prime areas for political signs.
2/2 Understand and give directions.
Tutor children in reading.
2/0 Tutor children in doing simple mathematics problems.
2/1 Tutor children in making realistic career decisions.
Lobby for a cause.
1/0 Contrast evidence with non-evidence.
1/0 Hold a mock trial.

__ Make up beds and give bed baths.
Sterilize surgical instruments.
5/2 Be able to understand written instructions.

Evans/Oak Ridge Senior High

4/3 Answer the telephone correctly and courteously.
___ Administer eye tests.
___ Prepare the patient properly.
___ Transport people by ambulance, stretcher and wheelchair.
___ Mix dental fillings.
___ Set up emergency oxygen equipment.
___ Apply bandages, dressings and drainage tubes, and give first aid.
Give injections.
1/0 Measure and record temperature, blood pressure, respiration, and pulse.
1/0 Administer personality tests.
___ Admit a patient to a hospital, interview outpatients, and record data on charts.
___ Process Insurance forms.

2/0 Measure solids and liquids in metric weights and measures.
1/0 Use a variety of laboratory equipment, such as a microscope.
0/1 Draw a map of the earth's surface.
___ Draw specified chemicals from stock.
5/4 Calculate percentages.
1/1 Compare simple forms of energy.
___ Read and interpret mechanical drawings.
2/1 Sort, reduce and analyze data.
___ Assist in installation of scientific instruments such as rain and tide guages.

2/0 Conduct laboratory experiments.
___ Produce a metal alloy.
___ Read and interpret electrical schematics.
___ Read, record and interpret data from electronic instruments.
2/0 Prepare findings, conclusions and recommendations from data analysis.
___ Produce a marketable substitute for a product.

Select sprays for crops.
1/1 Plant and fertilize crops.
___ Operate a tractor and harvest crops.
___ Mark and code wildlife.
1/0 Hand pollinate a plant.
___ Bank trees to protect buds from freezing.
___ Identify diseased or injured fish or wildlife.
1/0 Identify poisonous plants and animals.
___ Test the sugar and acid content of citrus trees.
___ Determine the cause of eroding soil.
1/0 Know which seasons are best for growing crops and plants.
___ Decide what protection certain species of wildlife require.
___ Grow a new variety of fruit or vegetable.
___ Estimate the grazing capacity of land.
___ Operate a greenhouse.

1/0 Change oil and lubricate a vehicle.
1/0 Rent an automobile.
1/0 Make flight reservations.
___ Demonstrate use of life-saving equipment.
___ Sell a trip ticket to several destinations.
2/1 Compute driving time between various points.
___ Give guided tours, handle tourist complaints.
___ Pack cargo within assigned weight limits.
___ Replace a water pump.
___ Install disc or power hydraulic brakes.
___ Tune an engine.
___ Repair an auto body.
___ Administer a driver's test.
0/1 Plot the course to be flown.
1/1 Organize a charter trip.

Staff Development Instrument - Employment-Entry Skills

The data summarized below is from a random sample of 16 Hallandale Senior High teachers and 8 McArthur Senior High teachers (counted twice) from Broward County.

Hallandale/McArthur Senior High

1/0 Drive heavy equipment, such as a tractor, bulldozer, grader, etc.

__ Correct defects by rubbing, chiseling, grinding, sanding.

__ Erect a scaffold.

__ Cover surfaces with paints, varnish, stain, enamel.

__ Cut and lay tiles and terra cotta.

__ Pour and smooth concrete.

__ Erect forms for pouring concrete.

__ Mix mortar and set stones or bricks using a trowel.

__ Install fuses, conduits, and switches.

__ Install plumbing and fixtures using a threading die.

__ Erect frame walls from 2 x 4 boards, using a hammer and saw.

__ Set door and window frames; install cabinets.

__ Select building materials for a job.

0/2 Estimate the cost of materials for a job.

1/0 Make drawings of a building to scale.

3/6 Sketch simple and complex devices.

2/2 Make drawings of a set of parts to scale.

__ Write purchase orders for vendor parts.

0/4 Transfer a pattern to materials.

1/0 Fire pottery in a kiln.

__ Machine metals to specifications.

__ Weld metal joints or heat treat metal to specifications.

__ Make a sand mold and produce a casting.

__ Mold fiberglass with metal using epoxies.

__ Solder electronic parts.

__ Make or assemble parts from programmed directions, within specifications.

0/2 Arrange the layout of work on an assembly line.

__ Expedite parts and materials for continuous production.

__ Inspect parts for size, finish and defects.

__ Test a product within specifications, using a voltmeter or a pressure guage.

1/2 Arrange window displays.

__ Make appliance repairs.

__ Operate a cash register and give correct change.

1/0 Give credits for items returned and make out credit forms.

__ Set up a maximum dollar purchase credit checking system and screen credit applications.

__ Take orders for products by telephone, and quote accurate delivery dates.

0/2 Compare values on a cost-per-unit basis.

__ Train workers to demonstrate new products and assist customers.

0/2 Gather information about a competitors product.

__ Select and mark-down merchandise for sale.

1/0 Keep updated files on incoming shipments and code incoming merchandise.

__ Order new goods based on a computer report of items sold.

__ Make periodic inventory counts and compute inventory values.

1/2 Compute an invoice and bill of lading.

0/2 Promote a profit-making event.

6/4 Write business letters.

1/0 Take dictation in shorthand and transcribe into readable copy.

__ Type rough drafts of letters and reports from a dictating machine.

0/2 Keep a well-organized correspondence file.

__ Run a switchboard; sort and distribute mail.

0/2 Operate a 10-key calculating machine.

0/2 Prepare a budget and estimate when to cut off spending to remain within budget.

1/2 Record business transactions as debits and credits.

1/4 File an Income Tax Form.

1/3 Produce payroll checks, withholding and social security records.

1/2 Keep an accurate accounts receivable file.

__ Keypunch alphanumeric data into punched cards and edit coded work using a verifier.

Hallandale/McArthur Senior High

__ Program a computer, using a systems flowchart and operate a sorter, collator and reproducer.
__ Express sales versus costs with charts or graphs.
1/2 Produce a balance sheet and profit/loss statement.

1/0 Cash payroll and personal checks.
2/4 Balance a checking or savings account.
1/4 Compare the rate of return on different investments.
0/2 Apply for and use credit cards.
__ Evaluate the best insurance offered by competing companies.
__ File an insurance claim.
__ Explain the need for life insurance.
2/0 Accept, count, and record withdrawals and deposits.
1/0 Balance receipts and payouts.
__ Use a multiple-listing book.
__ Compare the profits of various industries.
1/0 Examine the records of a business for accuracy.
2/0 Buy and sell stocks.
0/2 Apply for a loan.
1/4 Compute interest and collect loan payments.

3/4 Write or rewrite news articles with a typewriter, and proof copy.
1/2 Write a review of a book, play, or movie.
1/6 Develop advertising layouts which introduce new products.
2/6 Write advertisements or slogans.
0/4 Write the lead for a news story.
0/2 Develop film and enlarge prints.

1/4 Select pictures and write captions for publication.
0/4 Determine newspaper layout of pictures and copy.
0/2 Produce a school newspaper, radio or TV program.
3/4 Run a 16mm projector, video tape or slide type machine.
Use an offset printer.
0/2 Transfer voices or music from one tape to another.
1/2 Sell classified ads.
__ Compute advertising rates high enough to make a profit.
4/4 Conduct an interview.

3/6 Make sketches for a book.
2/2 Paint a landscape.
1/2 Build and paint stage props.
1/4 Apply makeup to actors or actresses.
0/2 Perform acrobatic stunts.
1/4 Imitate characters.
0/4 Act in a stage play.
0/2 Direct a stage play.
2/0 Carve a statue from clay.
0/2 Develop an original dance or gymnastic routine for a stage play.
0/4 Write a verse or poem for a greeting card.
1/0 Play a musical instrument in a band or orchestra.
1/0 Conduct an orchestra or band.
0/2 Plan special lighting effects.
0/4 Write the words for a song.

__ Clean and purify a pool.
Plant new grass for lawns.
0/2 Hold an exercise class for weight reducers.
__ Design wigs, fit hair pieces.
__ Run a self-service laundry.

0/2 Make alterations on clothes and replace zippers.
__ Kill termites, bugs, or vermin.
__ Decorate rooms with antiques or knick knacks.
__ Register guests in a hotel.
__ Cut and shape hair.
__ Give facial, scalp massage and manicure.
__ Strip tables and reset for the next meal quickly, using correct place setting rules.
1/0 Prepare salads, desserts, entrees, vegetables, and hot breads.
1/2 Plan the details of a menu.
__ Set up for catering to a party.

0/2 Read a utilities meter.
__ Identify pollution control violations.
__ Gather information from the public records.
0/2 Make a record of a traffic accident.
__ Inform people as to their constitutional rights and responsibilities.
1/2 Organize a club.
1/4 Speak for a group whom you represent.
1/0 Locate prime areas for political signs.
2/6 Understand and give directions.
0/4 Tutor children in reading.
0/4 Tutor children in doing simple mathematics problems.
1/4 Tutor children in making realistic career decisions.
0/2 Lobby for a cause.
__ Contrast evidence with non-evidence.
__ Hold a mock trial.

Make up beds and give bed baths.
1/0 Sterilize surgical instruments.
5/6 Be able to understand written instructions.

Hallandale/McArthur Senior High

__ Answer the telephone correctly and courteously.
__ Administer eye tests.
__ Prepare the patient properly.
__ Transport people by ambulance, stretcher and wheelchair.
__ Mix dental fillings.
Set up emergency oxygen equipment.
2/0 Apply bandages, dressings and drainage tubes, and give first aid.
Give injections.
4/0 Measure and record temperature, blood pressure, respiration, and pulse.
__ Administer personality tests.
__ Admit a patient to a hospital, interview outpatients, and record data on charts.
__ Process Insurance forms.

5/2 Measure solids and liquids in metric weights and measures.
2/0 Use a variety of laboratory equipment, such as a microscope.
Draw a map of the earth's surface.
3/0 Draw specified chemicals from stock.
5/8 Calculate percentages.
2/0 Compare simple forms of energy.
__ Read and interpret mechanical drawings.
3/2 Sort, reduce and analyze data.
1/0 Assist in installation of scientific instruments such as rain and tide guages.

2/0 Conduct laboratory experiments.
1/0 Produce a metal alloy.
__ Read and interpret electrical schematics.
1/0 Read, record and interpret data from electronic instruments.
1/0 Prepare findings, conclusions and recommendations from data analysis.
__ Produce a marketable substitute for a product.

Select sprays for crops.
1/0 Plant and fertilize crops.
__ Operate a tractor and harvest crops.
__ Mark and code wildlife.
__ Hand pollinate a plant.
__ Bank trees to protect buds from freezing.
2/0 Identify diseased or injured fish or wildlife.
1/0 Identify poisonous plants and animals.
1/0 Test the sugar and acid content of citrus trees.
__ Determine the cause of eroding soil.
__ Know which seasons are best for growing crops and plants.
1/0 Decide what protection certain species of wildlife require.
__ Grow a new variety of fruit or vegetable.
__ Estimate the grazing capacity of land.
__ Operate a greenhouse.

__ Change oil and lubricate a vehicle.
__ Rent an automobile.
__ Make flight reservations.
1/0 Demonstrate use of life-saving equipment.
__ Sell a trip ticket to several destinations.
2/2 Compute driving time between various points.
__ Give guided tours, handle tourist complaints.
__ Pack cargo within assigned weight limits.
__ Replace a water pump.
__ Install disc or power hydraulic brakes.
__ Tune an engine.
__ Repair an auto body.
__ Administer a driver's test.
__ Plot the course to be flown.
__ Organize a charter trip.

Staff Development Instrument - Employment-Entry Skills

The data summarized below is from a random sample of 22 Dunedin Senior High teachers and 11 St. Petersburg Senior High teachers (counted twice) from Pinellas County.

Dunedin/St. Petersburg Senior High

__ Drive heavy equipment, such as a tractor, bulldozer, grader, etc.
1/2 Correct defects by rubbing, chiseling, grinding, sanding.
Erect a scaffold.
1/0 Cover surfaces with paints, varnish, stain, enamel.
__ Cut and lay tiles and terra cotta.
__ Pour and smooth concrete.
__ Erect forms for pouring concrete.
__ Mix mortar and set stones or bricks using a trowel.
__ Install fuses, conduits, and switches.
__ Install plumbing and fixtures using a threading die.
__ Erect frame walls from 2 x 4 boards, using a hammer and saw.
__ Set door and window frames; install cabinets.
__ Select building materials for a job.
__ Estimate the cost of materials for a job.
1/0 Make drawings of a building to scale.

2/6 Sketch simple and complex devices.
1/2 Make drawings of a set of parts to scale.
0/2 Write purchase orders for vendor parts.
1/2 Transfer a pattern to materials.
2/2 Fire pottery in a kiln.
__ Machine metals to specifications.
__ Weld metal joints or heat treat metal to specifications.
2/0 Make a sand mold and produce a casting.
__ Mold fiberglass with metal using epoxies.
Solder electronic parts.
1/0 Make or assemble parts from programmed directions, within specifications.
__ Arrange the layout of work on an assembly line.
__ Expedite parts and materials for continuous production.
__ Inspect parts for size, finish and defects.
__ Test a product within specifications, using a voltmeter or a pressure guage.

__ Arrange window displays.
__ Make appliance repairs.
__ Operate a cash register and give correct change.
1/2 Give credits for items returned and make out credit forms.
__ Set up a maximum dollar purchase credit checking system and screen credit applications.
__ Take orders for products by telephone, and quote accurate delivery dates.
3/0 Compare values on a cost-per-unit basis.
__ Train workers to demonstrate new products and assist customers.
0/2 Gather information about a competitors product.
0/2 Select and mark-down merchandise for sale.
0/2 Keep updated files on incoming shipments and code incoming merchandise.
__ Order new goods based on a computer report of items sold.
1/2 Make periodic inventory counts and compute inventory values.
3/4 Compute an invoice and bill of lading.
__ Promote a profit-making event.

11/6 Write business letters.
3/2 Take dictation in shorthand and transcribe into readable copy.
4/6 Type rough drafts of letters and reports from a dictating machine.
3/2 Keep a well-organized correspondence file.
1/0 Run a switchboard; sort and distribute mail.
3/2 Operate a 10-key calculating machine.
2/0 Prepare a budget and estimate when to cut off spending to remain within budget.
2/2 Record business transactions as debits and credits.
2/4 File an Income Tax Form.
2/2 Produce payroll checks, withholding and social security records.
1/2 Keep an accurate accounts receivable file.
__ Keypunch alphanumeric data into punched cards and edit coded work using a verifier.

Dunedin/St. Petersburg Senior High

__ Program a computer, using a systems flowchart and operate a sorter, collator and reproducer.
__ Express sales versus costs with charts or graphs.
1/0 Produce a balance sheet and profit/loss statement.

3/1 Cash payroll and personal checks.
4/6 Balance a checking or savings account.
0/2 Compare the rate of return on different investments.
0/4 Apply for and use credit cards.
0/2 Evaluate the best insurance offered by competing companies.
File an insurance claim.
2/4 Explain the need for life insurance.
1/4 Accept, count, and record withdrawals and deposits.
1/4 Balance receipts and payouts.
__ Use a multiple-listing book.
__ Compare the profits of various industries.
0/2 Examine the records of a business for accuracy.
0/4 Buy and sell stocks.
0/4 Apply for a loan.
0/2 Compute interest and collect loan payments.

/2 Write or rewrite news articles with a typewriter, and proof copy.
7/8 Write a review of a book, play, or movie.
__ Develop advertising layouts which introduce new products.
3/4 Write advertisements or slogans.
/4 Write the lead for a news story.
1/0 Develop film and enlarge prints.

1/4 Select pictures and write captions for publication.
0/4 Determine newspaper layout of pictures and copy.
0/2 Produce a school newspaper, radio or TV program.
1/0 Run a 16mm projector, video tape or slide type machine.
2/0 Use an offset printer.
8/0 Transfer voices or music from one tape to another.
0/2 Sell classified ads.
__ Compute advertising rates high enough to make a profit.
4/8 Conduct an interview.

7/6 Make sketches for a book.
2/2 Paint a landscape.
2/0 Build and paint stage props.
__ Apply makeup to actors or actresses.
0/2 Perform acrobatic stunts.
0/4 Imitate characters.
2/4 Act in a stage play.
1/4 Direct a stage play.
3/6 Carve a statue from clay.
1/6 Develop an original dance or gymnastic routine for a stage play.
4/4 Write a verse or poem for a greeting card.
3/0 Play a musical instrument in a band or orchestra.
__ Conduct an orchestra or band.
__ Plan special lighting effects.
2/4 Write the words for a song.

__ Clean and purify a pool.
__ Plant new grass for lawns.
__ Hold an exercise class for weight reducers.
__ Design wigs, fit hair pieces.
__ Run a self-service laundry.

2/0 Make alterations on clothes and replace zippers.
__ Kill termites, bugs, or vermin.
1/0 Decorate rooms with antiques or knick knacks.
__ Register guests in a hotel.
__ Cut and shape hair.
__ Give facial, scalp massage and manicure.
__ Strip tables and reset for the next meal quickly, using correct place setting rules.
2/0 Prepare salads, desserts, entrees, vegetables, and hot breads.
1/4 Plan the details of a menu.
1/0 Set up for catering to a party.

0/2 Read a utilities meter.
1/2 Identify pollution control violations.
__ Gather information from the public records.
__ Make a record of a traffic accident.
2/2 Inform people as to their constitutional rights and responsibilities.
3/0 Organize a club.
3/4 Speak for a group whom you represent.
__ Locate prime areas for political signs.
6/6 Understand and give directions.
3/0 Tutor children in reading.
0/2 Tutor children in doing simple mathematics problems.
2/2 Tutor children in making realistic career decisions.
__ Lobby for a cause.
2/0 Contrast evidence with non-evidence.
0/2 Hold a mock trial.

__ Make up beds and give bed baths.
__ Sterilize surgical instruments.
5/6 Be able to understand written instructions.

Dunedin/St. Petersburg Senior High

3/2 Answer the telephone correctly and courteously.
__ Administer eye tests.
__ Prepare the patient properly.
__ Transport people by ambulance, stretcher and wheelchair.
__ Mix dental fillings.
__ Set up emergency oxygen equipment.
__ Apply bandages, dressings and drainage tubes. and give first aid.
__ Give injections.
__ Measure and record temperature, blood pressure, respiration, and pulse.
3/0 Administer personality tests.
__ Admit a patient to a hospital, interview outpatients, and record data on charts.
__ Process Insurance forms.

3/4 Measure solids and liquids in metric weights and measures.
3/2 Use a variety of laboratory equipment, such as a microscope.
__ Draw a map of the earth's surface.
1/2 Draw specified chemicals from stock.
4/4 Calculate percentages.
3/2 Compare simple forms of energy.
1/0 Read and interpret mechanical drawings.
5/0 Sort, reduce and analyze data.
__ Assist in installation of scientific instruments such as rain and tide guages.

4/2 Conduct laboratory experiments.
0/2 Produce a metal alloy.
__ Read and interpret electrical schematics.
__ Read, record and interpret data from electronic instruments.
4/0 Prepare findings, conclusions and recommendations from data analysis.
__ Produce a marketable substitute for a product.

__ Select sprays for crops.
1/0 Plant and fertilize crops.
__ Operate a tractor and harvest crops.
__ Mark and code wildlife.
__ Hand pollinate a plant.
__ Bank trees to protect buds from freezing.
__ Identify diseased or injured fish or wildlife.
1/0 Identify poisonous plants and animals.
__ Test the sugar and acid content of citrus trees.
__ Determine the cause of eroding soil.
__ Know which seasons are best for growing crops and plants.
__ Decide what protection certain species of wildlife require.
__ Grow a new variety of fruit or vegetable.
__ Estimate the grazing capacity of land.
__ Operate a greenhouse.

__ Change oil and lubricate a vehicle.
__ Rent an automobile.
1/0 Make flight reservations.
__ Demonstrate use of life-saving equipment.
1/0 Sell a trip ticket to several destinations.
0/2 Compute driving time between various points.
__ Give guided tours, handle tourist complaints.
__ Pack cargo within assigned weight limits.
__ Replace a water pump.
__ Install disc or power hydraulic brakes.
__ Tune an engine.
__ Repair an auto body.
__ Administer a driver's test.
__ Plot the course to be flown.
3/0 Organize a charter trip.

In the first column below is a tally of the preferences of thirteen EPIC employers who represent the thirteen EPIC occupational categories. The figures in the column indicate the number of EPIC members (of the thirteen polled), who indicated that the skills listed below (if developed in students) would save employers valuable training time. Each EPIC member selected skills from the entire list which would benefit their particular indistry, as some skills are beneficial to more than one industry.

In the second column, twelve participants of the Pinellas County workshop registered their beliefs that certain skills were presently being developed in Pinellas schools and students who mastered these skills could be given "Certificates of Skill Mastery".

In the third column the Orange and Broward coordinators indicated the availability of courses which develop these skills in their respective counties (O means not available in Orange, B means not available in Broward). In the fourth column, there is a summary tally of the skills developed in students by the 102 teacher sample.

	EPIC preferences	Pinellas workshop participants	Orange (O) Broward (B) coordinators (all but those indicated below)	B-O-P sample of 102 experimental and control teachers
Drive heavy equipment, such as a tractor, bulldozer, grader, etc.	3	3	B	1
Correct defects by rubbing, chiseling, grinding, sanding.	4	7		1
Erect a scaffold.	3	8		
Cover surfaces with paints, varnish, stain, enamel.	3	12		5
Cut and lay tiles and terra cotta.	3	7		
Pour and smooth concrete.	3	9		1
Erect forms for pouring concrete	4	9		1
Mix mortar and set stones or bricks using a trowel.	3	9		
Install fuses, conduits, and switches.	2	8		
Install plumbing and fixtures using a threading die.	2	7		

	EPIC	Pinellas	O/B	B-O-P
Erect frame walls from 2 x 4 boards, using a hammer and saw.	3	11		1
Set door and window frames; install cabinets.	2	10		
Select building materials for a job.	2	9		3
Estimate the cost of materials for a job.	1	9		6
Make drawings of a building to scale.	3	9		6
Sketch simple and complex devices.	2	8		24
Make drawings of a set of parts to scale.	3	9		11
Write purchase orders for vendor parts.	5	10		3
Transfer a pattern to materials.	2	9		10
Fire pottery in a kiln.	2	10		7
Machine metals to specifications.	2	6		
Weld metal joints or heat treat metal to specifications.	2	9		
Make a sand mold and produce a casting.	2	4		3
Mold fiberglass with metal using epoxies.	2	8		
Solder electronic parts.	3	9		
Make or assemble parts from programmed directions, within specifications.	4	7		2
Arrange the layout of work on an assembly line.	1	5		3
Expedite parts and materials for continous production.	2	2		
Inspect parts for size, finish and defects.	3	5		
Test a product within specifications, using a voltmeter or a pressure guage.	1	7		
Arrange window displays.	2	9		7
Make appliance repairs.	2	8		
Operate a cash register and give correct change.	6	12		1
Give credits for items returned and make out credit forms.	5	10		11
Set up a maximum dollar purchase credit checking system and screen credit applications.	3	6		

	EPIC	Pinellas	O/B	B-O-P
Take orders for products by telephone, and quote accurate delivery dates.	4	8		4
Compare values on a cost-per-unit basis.	4	9		9
Train workers to demonstrate new products and assist customers.	4	6		2
Gather information about a competitor's product.	6	7		9
Select and mark-down merchandise for sale.	4	9		5
Keep updated files on incoming shipments and code incoming merchandise.	4	4		5
Order new goods based on a computer report of items sold.	5	7		2
Make periodic inventory counts and compute inventory values.	6	8		7
Compute an invoice and bill of lading.	5	10		15
Promote a profit-making event.	4	9		7
Write business letters.	8	12		35
Take dictation in shorthand and transcribe into readable copy.	6	11		8
Type rough drafts of letters and reports from a dictating machine.	7	11		12
Keep a well-organized correspondence file.	8	11		8
Run a switchboard; sort and distribute mail.	7	12		2
Operate a 10-key calculating machine.	6	12		15
Prepare a budget and estimate when to cut off spending to remain within budget.	4	10		8
Record business transactions as debits and credits.	5	12		12
File an Income Tax Form.	3	12		19
Produce payroll checks, withholding and social security records.	4	11		14
Keep an accurate accounts receivable file.	5	12		10
Keypunch alphanumeric data into punched cards and edit coded work using a verifier.	5	7		
Program a computer, using a systems flowchart and operate a sorter, collator and reproducer.	3	11		

	EPIC	Pinellas	O/B	B-O-P
Express sales versus costs with charts or graphs.	3	6		4
Produce a Balance Sheet and Profit/Loss statement.	2	10		12
Cash payroll and personal checks.	4	9		10
Balance a checking or savings account.	7	12		25
Compare the rate of return on different investments.	3	9	B	10
Apply for and use credit cards.	4	11		7
Evaluate the best insurance by competing companies.	3	11		6
File an insurance claim.	5	10		2
Explain the need for life insurance.	5	10		11
Accept, count, and record withdrawals and deposits.	5	10		13
Balance receipts and payouts.	6	10		14
Use a multiple-listing book.	2	7		3
Compare the profits of various industries.	1	4		
Examine the records of a business for accuracy.	3	7		5
Buy and sell stocks.	2	9		7
Apply for a loan.	5	8		7
Compute interest and collect loan payments.	3	8		11
Write or rewrite news articles with a typewriter, and proof copy.	5	10		14
Write a review of a book, play, or movie.	4	9		24
Develop advertising layouts which introduce new products.	2	7		8
Write advertisements or slogans.	3	8		18
Write the lead for a news story.	5	10		11
Develop film and enlarge prints.	3	9		6
Select pictures and write captions for publication.	3	10		13
Determine newspaper layout of pictures and copy.	3	9		12

	EPIC	Pinellas	O/B	B-O-P
Produce a school newspaper, radio or TV program.	4	10		6
Run a 16mm projector, video tape or slide tape machine.	5	9		13
Use an offset printer.	2	8		2
Transfer voices or music from one tape to another.	2	8		5
Sell classified ads.	2	7		5
Compute advertising rates high enough to make a profit.	1	5		1
Conduct an interview.	5	9		24
Make sketches for a book.	3	6		25
Paint a landscape.	2	8		12
Build and paint stage props.	2	9		7
Apply makeup to actors or actresses.	2	9		5
Perform acrobatic stunts.	2	8		4
Imitate characters.	2	9		9
Act in a stage play.	2	9		11
Direct a stage play.	1	8		7
Carve a statue from clay.	2	10		14
Develop an original dance or gymnastic routine for a stage play.	1	9		9
Write a verse or poem for a greeting card.	4	9		13
Play a musical instrument in a band or orchestra.	2	9		3
Conduct an orchestra or band.	1	9		1
Plan special lighting effects.	1	7		2
Write the words for a song.	2	5		10
Clean and purify a pool.	2	5	B	
Plant new grass for lawns.	3	8		
Hold an exercise class for weight reducers.	2	6	O	3
Design wigs, fit hair pieces.	1	9		
Run a self-service laundry.	2	6	B	

	EPIC	Pinellas	O/B	B-O-P
Make alterations on clothes and replace zippers.	3	10		5
Kill termites, bugs, or vermin.	2	6	0	
Decorate rooms with antiques or nick nacks.	3	7		2
Register guests in a hotel.	4	4		
Cut and shape hair.	2	10		1
Give facial, scalp massage and manicure.	2	9		
Strip tables and reset for the next meal quickly, using correct place setting rules.	4	9		1
Prepare salads, desserts, entrees, vegetables, and hot breads.	4	11		4
Plan the details of a menu.	4	10		9
Set up for catering to a party.	3	9		2
Read a utilities meter.	2	5		4
Identify pollution control violations.	1	6		3
Gather information from the public records.	5	6		
Make a record of a traffic accident.	4	7		2
Inform people as to their constitutional rights and responsibilities.	2	10		4
Organize a club.	3	10		10
Speak for a group whom you represent.	4	10		16
Locate prime areas for political signs.	2	10	B	1
Understand and give directions.	7	8		24
Tutor children how to read.	3	9		7
Tutor children how to do simple mathematics problems.	2	8		8
Tutor children how to make realistic career decisions.	1	9	B	12
Lobby for a cause.	5	7	B	2
Contrast evidence with non-evidence.	3	7		3
Hold a mock trial.	1	9		3
Make up beds and give bed baths.	5	9		

	EPIC	Pinellas	O/B	B-O-P
Sterilize surgical instruments.	5	9		1
Be able to understand written instructions.	9	7		29
Answer the telephone correctly and courteously.	9	10		11
Administer eye tests.	3	9	O	
Prepare the patient properly.	3	9		
Transport people by ambulance, stretcher and wheelchair.	4	7		
Mix dental fillings.	4	3	O/B	
Set up emergency oxygen equipment.	5	5		
Apply bandages, dressings and drainage tubes, and give first aid.	3	7		2
Give injections.	3	6		
Measure and record temperature, blood pressure, respiration, and pulse.	5	8		5
Administer personality tests.	2	6	O/B	4
Admit a patient to a hospital, interview outpatients, and record data on charts.	5	6		
Process insurance forms.	5	6		
Measure solids and liquids in metric weights and measures.	3	8		16
Use a variety of laboratory equipment, such as a microscope.	3	8		7
Draw a map of the earth's surface.	1	9		1
Draw specified chemicals from stock.	3	6		5
Calculate percentages.	3	8		30
Compare simple forms of energy.	2	7		8
Read and interpret mechanical drawings.	2	8		1
Sort, reduce and analyze data.	1	8		13
Assist in installation of scientific instruments such as rain and tide guages.	2	8		1
Conduct laboratory experiments.	1	9		10
Produce a metal alloy.	1	6		3
Read and interpret electrical schematics.	1	9		

	EPIC	Pinellas	O/B	B-O-P
Read, record and interpret data from electronic instruments.	2	9		1
Prepare findings, conclusions and recommendations from data analysis.	1	9		7
Produce a marketable substitute for a product.	1	6	B	2
Select sprays for crops.	1	7		
Plant and fertilize crops.	2	8		4
Operate a tractor and harvest crops.	2	6		
Mark and code wildlife.	2	6	B	
Hand pollinate a plant.	2	7		1
Bank trees to protect buds from freezing.	3	6		
Identify diseased or injured fish or wildlife.	1	7		2
Identify poisonous plants and animals.	2	8		3
Test the sugar and acid content of citrus trees.	2	6		1
Determine the cause of eroding soil.	1	6		
Know which seasons are best for growing crops and plants.	3	6		1
Decide what protection certain species of wildlife require.	2	7		1
Grow a new variety of fruit or vegetable.	1	8		
Estimate the grazing capacity of land.	2	5	O	
Operate a greenhouse.	1	7		
Change oil and lubricate a vehicle.	3	9		1
Rent an automobile.	5	6	B	1
Make flight reservations.	5	7		2
Demonstrate use of lifesaving equipment.	2	7		1
Sell a trip ticket to several destinations.	2	6		1
Compute driving time between various points.	4	9		9
Give guided tours, handle tourist complaints.	2	5	B	
Pack cargo within assigned weight limits.	3	2	B	
Replace a water pump.	3	7		
Install disc or power hydraulic brakes.	2	9		

	EPIC	Pinellas	O/B	B-O-P
Tune an engine.	2	9		
Repair an auto body.	2	9		
Administer a driver's test.	2	9	O/B	
Plot the course to be flown.	1	7		1
Organize a charter trip.	2	6		5

Staff Development Instrument - Staff Assistance

Below is the total number of teacher responses who agree that students are receiving staff assistance.

Item Number	Elementary						Middle						Senior High					
	LW (17)	RL (17)	PL (24)	M (24)	CP (16)	P (16)	CL (19)	EG (19)	WA (16)	LI (16)	SE (16)	TY (16)	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)
1	15	11	20	19	8	8	11	4	8	0	4	4	1	3	12	10	2	6
2	17	5	12	0	5	2	10	6	8	3	7	7	7	5	7	12	12	8
3	8	3	24	1	11	2	11	3	12	2	3	1	9	4	6	10	8	6
4	17	5	24	0	6	2	14	5	10	2	4	4	10	6	3	10	15	6
5	0	1	0	0	2	2	3	1	2	0	2	1	3	4	15	6	8	8
6	17	5	24	8	9	2	14	6	12	2	6	8	8	5	5	10	9	10
7	17	2	20	6	8	4	12	6	10	2	5	10	5	7	8	12	8	8
8	17	5	20	5	10	4	10	4	6	1	7	8	8	7	6	10	13	10
9	17	6	24	0	9	2	13	5	10	2	7	9	10	9	5	12	15	10
10	13	4	0	3	3	0	6	3	8	1	5	5	8	8	8	10	14	10
11	11	10	20	12	9	4	14	8	6	3	8	10	8	9	4	12	16	8
12	16	8	20	10	8	4	11	7	8	4	8	10	7	10	6	12	17	8
13	14	8	0	3	9	2	11	9	8	3	7	6	7	5	4	8	15	4
14	17	7	16	2	7	4	11	8	10	2	5	8	10	8	5	10	13	2
15	10	3	8	5	5	2	7	3	4	1	2	3	5	7	9	8	8	
Total	206	83	232	74	109	44	158	78	122	28	80	94	106	97	152	152	173	104

Staff Development Instrument - Staff Assistance

Below is the total number of teacher responses who believe that staff members are involved other than the ones that should be responsible for helping students.

Item Number	Elementary						Middle						Senior High					
	LW (17)	RL (17)	PL (24)	M (24)	CP (16)	P (16)	CL (19)	EG (19)	WA (16)	LI (16)	SE (16)	TY (16)	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)
1			4				1	1			1	1				2	5	
2			4	3		4	4	1			2	1		2		2	2	
3		1	12	2	2	6	3	1			2	3		3		2	4	6
4		1	12	2	1	4	3	2			2	1		5			2	
5	1	1	4	2	2		6	2	2		2	1				2	1	4
6		2	12		1		4	2			2	2	1	4		2	1	
7		2	12	2	1	4	3	1			2	1	1	6			2	
8			12	2	1	2	1	2	2	1	1			3		2	1	
9		1	12	2	1	2	3	1	2		1			2			1	
10			4	2	2	4	4		2	1	3	1	1	2		2	3	
11		1	4	1		2	2	1	2	1	1	1	1	2			1	
12			8	1	2	2	2	1	2	1	1		1	2		2		
13			4	1	1	2	2		2		1	2	1	2		4	1	
14			16	2	1	2	3		2	1	2					2	2	4
15			12	1	1	2	3	2	2	1	3	1				4	1	4
Total	1	9	132	23	16	36	44	17	18	6	26	15	6	36	0	26	27	18

Staff Development Instrument - Staff Attitudes

Below is a summary of the total number of "Yes" responses, by school, of teachers from the Orange, Broward and Pinellas school districts.

Item Number	Elementary						Middle						Senior High					
	LW (17)	RL (17)	PL (24)	M (24)	CP (16)	P (16)	CL (19)	EG (19)	WA (16)	LI (16)	SE (16)	TY (16)	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)
1	17	12	24	16	16	14	17	13	14	13	13	12	9	10	14	16	18	18
2	16	6	12	7	16	8	8	4	14	2	7	5	3	1	6	8	8	6
3	17	5	8	2	16	10	13	3	12	8	2	9	6	1	12	8	12	10
4	8	1	20	6	8	6	10	4	6	8	14	8	3	4	11	10	4	14
5	9	9	8	13	7	10	12	15	4	9	10	9	5	7	8	10	12	12
6	14	12	8	7	14	10	13	12	8	9	14	9	4	7	9	14	17	16
7	7	2	8	10	5	4	6	9	4	6	4	6	3	6	4	10	12	8
8	14	12	16	1	14	10	4	5	8	3	9	8	4	3	5	8	10	6
9	13	6	8	1	11	0	8	5	4	2	5	5	2	1	1	10	6	4
10	14	4	0	1	10	0	3	4	2	1	6	4	1	4	3	8	4	4
Total	129	69	112	64	117	72	94	74	76	61	84	75	27	44	73	102	103	98

Staff Development Instrument - Staff Attitudes

Below is a summary of the total number of "No" responses, by school, of teachers from the Orange, Broward and Pinellas school districts.

Item Number	Elementary						Middle						Senior High					
	LW (17)	RL (17)	PL (24)	M (24)	CP (16)	P (16)	CL (19)	EG (19)	WA (16)	LI (16)	SE (16)	TY (16)	EV (13)	OR (13)	HH (16)	MC (16)	DU (22)	SP (22)
1				2			1	3	2		1	2	1		2		1	2
2		1	4	1			4	5		6	6	3	3		8	2	10	2
3		1	8	4		2	2	7	2	1	8	2	2	1	1		3	4
4	2	3		3	2	2	5	6	4	1		3	3	2	1		14	2
5	1	6	12	3	5		4	1	6	2		2	2	1	6		7	4
6		2		1		2	2	2	4	1	1	3	2		4			
7	7	4	4		3	2	10	7	8	7	7	6	4	2	10	2	7	4
8				2			4	4	2	2	1	1	1		10		1	4
9		4		3		2	7	6	8	1	6	4	5	2	8	2	6	4
10		7	8	2	1	6	11	7	4	3	7	3	4	1	7	2	8	8
Total	10	28	36	21	11	16	50	48	40	24	33	29	27	10	57	8	57	34

Analysis - Table 38 contains summary data on teacher responses to questions about the amount of teaching activity in the areas of economic knowledge and occupational knowledge, as well as the amount of assistance provided by the staff to the students, and staff attitudes in the area of career education. Each of these figures have been arrived at by dividing the number of responses in the summary tables by the number of respondents in the sample. An overall index of the activities contained the the EPIC components was prepared. This index was computed as follows:

E + 1/3 OC + SA1 + SA2 = EI, where
E = Economic knowledge score
OC - Occupational knowledge adjusted total
SA1 = Adjusted score staff assistance - first questionnaire
SA2 - Adjusted score staff attitudes - second questionnaire

The occupational knowledge score was divided by three so as to roughly equate the weight given each score in the total index.

As can be seen from Table 38, there is a substantial difference between the EPIC index scores at the elementary level between the career education and the control schools. At the middle school level this difference is still clearly in favor of the career education schools, but the size of the difference is less. At the high school level, there is no difference between career education and control schools. Table 39 contains the adjusted results from the Employment-Entry Skills portion of the teacher questionnaire. If these results are added to the overall EPIC index for the high schools, the overall results shows the control schools with a slightly higher average score than that of the career education schools.

This data clarifies many of the results that were obtained in the student testing. The student testing consistently produced significant differences between treatment groups at the elementary and middle school levels. At the high school level, differences were much less frequent. The teacher's reports of activities relevant to the EPIC components indicates that the reason for these findings is that there is little difference between the "career education" high schools and the "control" high schools in terms of the instructional activities.

Table 38

EPIC Index

	Career Education				Control			
	Elementary							
	LW	PL	CP	Average	RL	MI	PA	Average
Know. of Economics	14.3	6.0	4.4		3.8	3.1	4.0	
Know. of Occ.	6.8	7.4	14.0		2.2	2.4	4.8	
Staff Assistance	12.1	9.7	6.8		4.9	3.1	2.8	
Staff Attitudes	7.6	4.7	7.3		4.1	2.7	4.5	
Total	40.8	27.8	32.5	33.7	15.0	11.3	16.1	14.1
	Middle/Junior High							
	CL	WA	SE		EG	LI	TY	
Know. of Economics	3.4	2.8	3.6		1.9	2.2	2.4	
Know. of Occ.	5.0	7.5	4.1		2.7	3.1	3.3	
Staff Assistance	8.3	7.6	5.0		4.1	1.8	5.9	
Staff Attitudes	4.9	4.8	5.3		3.9	3.8	4.7	
Total	21.6	22.7	18.0	20.8	12.6	10.9	16.3	13.3
	Senior High							
	EV	HH	DU		OR	MC	SP	
Know. of Economics	3.6	2.0	2.3		2.4	3.4	3.5	
Know. of Occ.	4.2	2.7	1.5		2.5	3.0	1.8	
Staff Assistance	8.2	9.5	7.9		7.5	9.5	4.7	
Staff Attitudes	2.1	4.6	4.7		3.4	6.4	4.5	
Total	18.1	18.8	16.4	17.8	15.8	22.3	14.5	17.5

Table 39

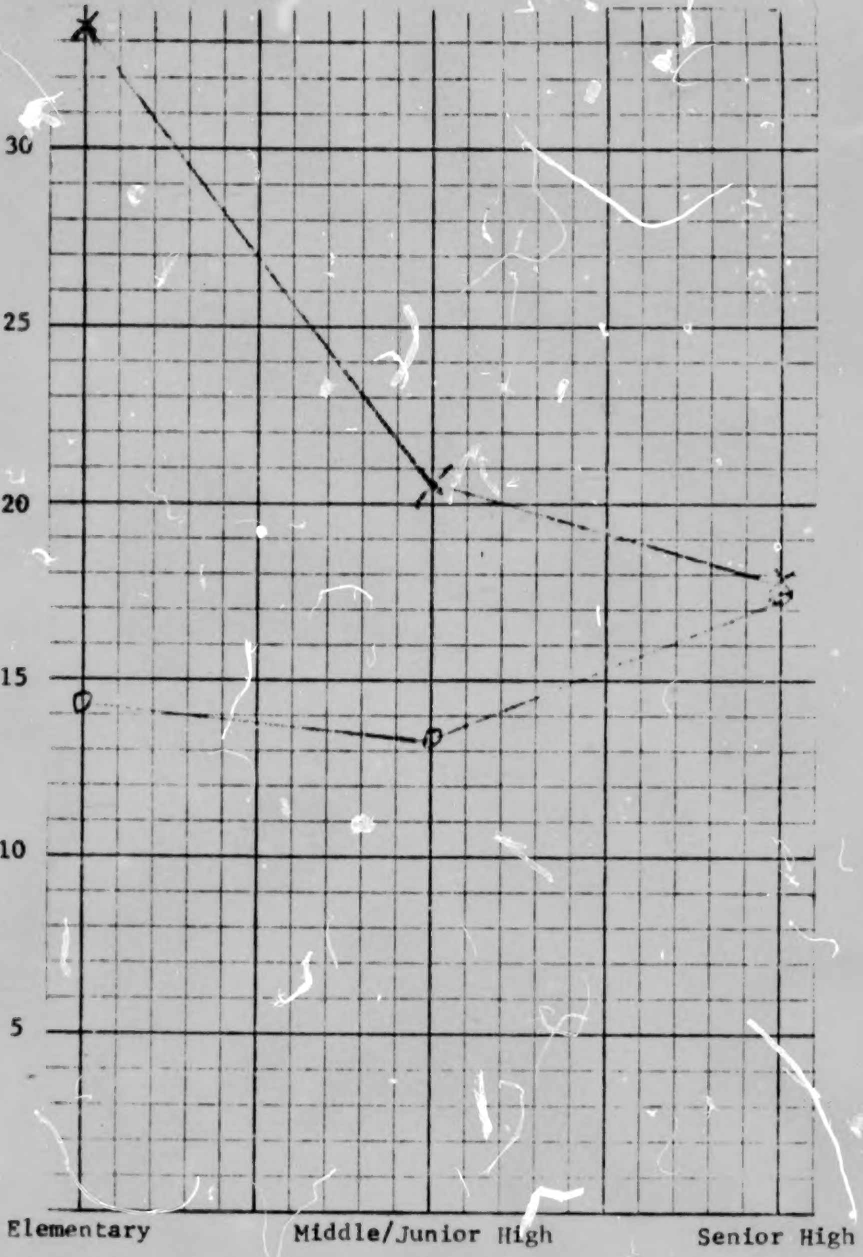
	Career Education				Control			
	EV	HH	DU	Average	OR	MC	SP	Average
EPIC Index	18.1	18.8	16.4		15.8	22.3	14.5	
Emp.-Entry Skills	13.3	8.6	8.6		12.9	12.8	10.4	
Total	31.4	27.4	25.0	27.9	28.7	35.1	24.9	29.6

Figure 4

EPIC Index

Teacher Activities in Economics and Careers

x = Career Education
o = Control



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RESULTS AND ANALYSIS OF ADMINISTRATIVE DATA

Career Education Director's Questionnaire

The data recorded below was provided by Bob Megow, Orange County Director; Anne McMichael, Broward County Coordinator; and Myrtle Hunt, Pinellas County Director.

In the following districts, there are:

	Orange	Broward	Pinellas
Elementary Schools	66	96	72
Middle/Junior High Schools	19	26	19
Senior High Schools	10	20	11
Elementary Students	43,674	58,850	36,137
Middle/Junior High Students	23,039	31,590	22,739
Senior High Students	19,538	41,434	31,527
Exceptional Students		5,542	

Overview of Career-Economic-Community Education Implementation

	Orange	Broward	Pinellas
1. Has the School Board endorsed career education as a district priority?	Yes	No	Yes
2. Has a career education coordinating council, screening committee, advisory council, etc. been established involving representatives from industry, labor, professions, and government, with parents and educators?	Yes	Yes	Yes
3. Has a labor-market information system been implemented (such as Project VIEW)?	Yes	Yes	Yes
4. Is there a district plan to reduce race bias and sex stereo-typing in curriculum and occupation decison-making?	Yes	No	No
5. Is there a career-referenced-course registration system (at about the 9th grade) in the district in which students are encouraged to register for courses which will help them develop work skills required by a particular career area?	Yes	Yes	No
6. Has the district collected data on student performances in career education activities in addition to process data?	Yes	Yes	Yes
7. Has a community attitudes toward career education survey been implemented?	Yes	No	Yes

	Orange	Broward	Pinellas
8. Since the start of career education in the district, in 197__, how much has been expended to support the career education program?	1971	1972	1972
Total	$3,300,664	$1,169,366	$1,442,610
State	2,114,715	1,127,700	491,412
Federal	816,568	41,666	864,392
Local	369,381		86,806
9. What percent of the current career education budget is funded by the district?	1.8%	none	11.0%
10. What number and percent of the career education staff are funded by the district?	None/0%	None/0%	None/0%
11. How many of the schools do not have either a career counselor or an occupational specialist? Elementary	21	96	
Middle/Junior High		0	
Senior High		0	
12. Has the responsibility for planning and implementing economic education been assigned to specific district staff members?	Yes	Yes	Yes
13. Does the district provide educational, recreational and cultural services with open-enrollment to all interested member of the community?	Yes	Yes	Yes
14. What percentage of the schools are on some variation of the year-round concept? Elementary	0%	*	0%
Middle/Junior High	0%	*	0%
Senior High	0%	*	0%
15. Have any community education or community-school evaluations been performed in the district with findings and recommendations?	Yes	Yes	No

* Only the Nova Schools (2 elementary, 1 middle, 1 high school) in the past.

Component #8 - Staff Development

1) Since beginning the career education project in 19__, what percent of the different types of staff listed below have been involved with the in-service programs listed below?

Orange	1971
Broward	1972
Pinellas	1972

	District-Level Administrators and Supervisors	School-Level Administrators	Grade-Level Department Chairpersons	Guidance and Counseling Personnel	Occupational Specialists	Librarians and Media Specialists	Elementary Teachers	Middle and Junior High Teachers	Senior High Teachers	County
Orientation to career education	25	30	35	100	100	35	66	40	20	Orange
	75	90	80	80	100	80	85	88	90	Broward
	85	45	30	95	100	45	60	45	30	Pinellas
Development of career education materials	0	0	5	5	100	0	1	1	1	Orange
	20	2	5	5	75	75	65	35	25	Broward
				45	100	5	25	15	7	Pinellas
Develop of career resource centers	0	0	0	0	100	35	0	0	0	Orange
					100	90				Broward
				100	100	5				Pinellas
Career exploration through the five subject areas	0	0	35	0	50	0	66	40	20	Orange
	10	2	5	5	75	25	65	35	25	Broward
	10	5	-	20	20	5	25	10	7	Pinellas
Guidance strategies	25	30	35	100	100	35	66	40	20	Orange
				80	80		65	35	25	Broward
				100	100		40	25	8	Pinellas
Occupational specialists training programs	0	0	0	5	100	0	0	0	0	Orange
	10	0	0		100					Broward
	25	45		100	100					Pinellas
Communication skills	2	2	30	100	100	15	30	10	10	Orange
										Broward
	90	85		100	100		25	10	7	Pinellas
Program for interns	- -	- - -	- -	not applicable			- -	- - -	- -	Orange
	7*	3*	6*							Broward
							2	2	2	Pinellas
Other										Orange
										Broward
										Pinellas

* Persons, not percent, for intern program; pilot involving three schools (1 elementary, 1 middle, 1 senior high).

	Orange	Broward	Pinellas
2. What type of compensation did staff members receive for the workshops?			
a. Release-Time	x	x	x
b. Money over-and-above salary	x	x	x
c. Points toward renewal of teaching certificate	x	x	x
d. College credit			
e. Other		x*	
3. What kind of funds were used for the workshops?			
a. State Funds	x	x	x
b. Federal Funds	x	x	x
c. Local District Funds	x		x
d. Business/Industry Grants			
e. Other			

* Incentive Award Credit

Placement/Follow-Up Director's Questionnaire

Below is a summary of responses from the district placement/follow-up directors of the Orange, Broward and Pinellas school districts.

	Number			Percentage		
	Orange	Broward	Pinellas	Orange	Broward	Pinellas
1. What was the approximate percent of the students in the last graduating class who went on to:						
a. Higher education?				52	35	50
b. Full-Time employment?				29	60	33
c. Post-secondary vocational schools?				9	5	5
d. Military?				3		3
e. Adult evening school?				1		3
f. Commercial/private schools?				4		1
g. Homemaking?				2		4
h. Traveling?				1		1
2. What number and percent of all 1974 graduates were mailed a follow-up questionnaire?	4,369	1,000	5,638	100	10	100
3. What number and percent of all 1974 graduates returned the questionnaire?	1,535	340	2,531	35	3.4	45
4. What was the approximate number and percent of all 1974 graduates who had at least one paying job before leaving school?	1,092		2,985	25		56
5. What number of 9th-12th graders have been placed on a job as a result of:						
a. Employers contacted by members of the placement staff?	900	very few	1,147			
b. Employers calling the schools?	1,718*	very few	536			
c. Referrals by the Florida State Employment Service?	260	very few	97			
6. What number and percent of all 9th-12th graders in the school district made contact with a person responsible for student placement?	17,000	3,000	24,026	30	10	79
7. What number and percent of all dropouts were given information on part-time educational facilities in the community?	1,182	3,000	1,441	95	20	49
8. What number and percent of the employers who hired graduates during the 73-74 school year have submitted an evaluation of student productivity on the job?	300		553	37	33	49

* 1080 were placed at Disney World for the Bicentennial Parade.

	Orange	Broward	Pinellas
9. How many of the senior high schools in the district have a person responsible for student placement? (Out of the number of senior high schools in the district.)	10/10	20/20	10/11

10. What are the other district functions of the person responsible for student placement?

Orange — Implementing and maintaining career education activities, such as, arranging field experiences, job shadowing, community resourses, and conducting individual and group career information sessions.

Broward — In-service and FSES training.

Pinellas — Career awareness and self-awareness activities, classroom presentations and employability skills units, arrange for business visitations, career information centers.

11. What training does each person responsible for student placement receive?

Orange — Training from Florida State Employment Service. Tour of Vocational/Technical Centers. Tour of local business and industry. State approved training program for all occupational specialists.

Broward — General guidance duties.

Pinellas — Tour of all Vocational/Technical Adult Education Centers, tour of business and industry (committee of 100), two days county training, two days FSES training, (communications skills), (values clarification training), (school orientation).

School Coordinator's Questionnaire - Elementary Schools - Orange County

# of instruments sent - 34; # returned - 18; % of return - 52.9%

Student population, total by grade:

K	1461	4	1930
1	1952	5	1931
2	1901	6	2137
3	1824	EMR	57

Aggregate total 13,193

Component #5 - Alternatives for Potential Early School Leavers

1. What is the approximate percentage of the enrollment at each grade level (5 through 6) which have been identified as potential early school leavers?

   No response

   Conclusion: Possible invalid item for elementary.

2. Does the school have a program for the identification of potential early school leavers?

   Yes - 0 or 0%; No - 12 or 67%; No response - 6 or 33%

   Conclusion: Non-valid item for elementary.

3. Does the school have a program for the referral of potential early school leavers?

   Yes - 1 or 5.6%; No - 11 or 61.1%; No response - 6 or 33.3%

   Conclusion: Non-valid item for elementary.

4. Is there a current data file with the reasons for the dropouts?

   Yes - 0 or 0%; No - 12 or 67%; No response - 6 or 33%

   Conclusion: Non-valid item for elementary.

Component #6 - Student Worker Contacts

1. Went on field trips.

   # of responses - 18; total - 6224

   Ratio: Student field trip participation/student population sample - 47.2%.

   Conclusion: Valid item for elementary.

2. Went on three or more field trips.

# of responses - 17; total - 486

Ratio: Student field trip participation/student population sample
3 or more - 3.7

Conclusion: Valid item for elementary.

3. Took part in a shadowing experience, in which the student spends a day or two, with workers who are working in an occupation of interest to the student.

# of responses - 18; total - 5; average per responding school - 0.27

Conclusion: Non-valid item for elementary.

4. Took part in employer-based or vocational cooperative programs, such as work experience.

# of responses - 18; total - 5

Ratio: Student employer-based/coop participation/student population sample - 0.03%

Conclusion: Non-valid item for elementary.

Since September 1, 1975, the following number of people from the community:

5. Were involved in career days/fairs.

# of responses - 18; total - 2047

Ratio: Student career day/fair participation/student population sample - 15.5%

Conclusion: Valid item for elementary.

6. Visited classrooms to discuss careers.

# of responses - 18; total - 162; average per responding school - 9.0

Conclusion: Valid item for elementary.

There is a file or scrapbook of student reactions to the following items:

1. Field trips: Yes - 6 or 33.3%.

Conclusion: Valid item for elementary.

2. Career days/fairs: Yes - 1 or 5.6%.

Conclusion: Valid item for elementary.

3. Shadowing experiences: Yes - 0%.

Conclusion: Non-valid item for elementary.

4. Employer-based cooperative programs: Yes - 0%.

Conclusion: Non-valid item for elementary.

5. Workers visiting students: Yes - 3 or 16.7%.

Conclusion: Valid item for elementary.

The school is using a community resource directory which provides names, addresses and telephone numbers of community members who have registered a willingness to come to the schools.

Yes - 12 or 67%; No - 6 or 33%

Conclusion: Valid item for elementary.

School Coordinator's Questionnaire - Middle and/or Junior High and Secondary - Orange County

# of instruments sent - 11; # returned - 9; % or return - 81.8%

Student population, total by grade:				
7	3266		11	934
8	3312		12	743
9	3346		Special Area:	63
10	1155		Aggregate Total:	12,819

Component #5 - Alternatives for Potential Early School Leavers

1. What is the approximate percentage of the enrollment at each grade level (7 through 12) have been identified as potential early school leavers?

   8 - 2.75% average per school; 9 - 2.79% average per school; 10 - no response; 11 - no response; 12 - no response

   Conclusion: Valid item for secondary if records are accurate.

2. Does the school have a program for the identification of potential early school leavers?

   Yes - 5 or 55.6%; No - 4 or 44.4%; No response - 0 or 0%

   Conclusion: Valid item for secondary.

3. Does the school have a program for the referral of potential early school leavers?

   Yes - 7 or 77.8%; No - 2 or 22.2%; No response - 0 or 0%

   Conclusion: Valid item for secondary.

4. Is there a current data file with reasons for the dropouts?

   Yes - 5 or 55.6%; No - 4 or 44.4%; No response - 0 or 0%

   Conclusion: Valid item for secondary.

Component #6 - Student-Worker Contacts

Since September 1, 1975, the following number of students:

1. Went on field trips.

   # of responses - 9; total - 2804

   Ratio: Student field trip participation/student population sample - 21.9%

   Conclusion: Valid item for secondary.

2. Went on three or more field trips.

# of responses - 8; total - 1060

Ratio: Student field trip participation/student population sample - 8.3%

Conclusion: Valid item for secondary.

3. Took part in a shadowing experience, in which the student spends a day or two with workers who are working in an occupation of interest to the student.

# of responses - 9; total - 60; average per responding school - 6.67

Conclusion: Valid item for secondary.

4. Took part in employer-based or vocational cooperative programs, such as work experience?

# or responses - 9; total - 1018

Ratio: Student field trip participation/student population sample - 7.9%

Conclusion: Valid item for secondary.

Since September 1, 1975, the following number of people from the community:

5. Were involved in career days/fairs.

# of responses - 8; total - 1306

Ratio: Student field trip participation/student population sample - 10.2%

Conclusion: Valid item for secondary.

6. Visited classrooms to discuss careers.

# of responses - 8; total - 126; average per responding school - 15.75

Conclusion: Valid item for secondary.

There is a file or scrapbook of student reactions to the following items:

1. Field trips: Yes - 3 or 33%.

Conclusion: Valid item for secondary.

2. Career day/fair: Yes - 3 or 33.3%.

Conclusion: Valid item for secondary.

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3. Shadowing experiences: Yes - 2 or 22.2%.

Conclusion: Valid item for secondary.

4. Employer-based cooperative program: Yes - 2 or 22.2%.

Conclusion: Valid item for secondary.

5. Workers visiting students: Yes - 4 or 44.5%.

Conclusion: Valid item for secondary.

The school is using a community resource directory which provides names, addresses, and telephone numbers of community members who have registered a willingness to come to the schools.

Yes - 9 or 100%

Conclusion: Valid item for secondary.

Community Education Director's Questionnaire

I. Please place a check mark (✓) next to each statement which describes the current nature of community education in your school district. Double check mark (✓✓) the one statement which best describes the current nature of community education in your school district.

✓ A. After school and evening programs for youths and adults with emphasis on credit classes.

✓ B. A total system of education based upon maximum utilization of existing human, physical and financial resources.

✓ C. Daytime (7:30 A.M. - 5:59 P.M.) programs and activities primarily for youths.

✓ D. The systematic involvement of community members in needs assessment, goal setting, delivery of educational experiences and evaluation of the total school program.

✓ E. After school and evening programs primarily for adults.

✓✓ F. After school and evening programs for youths and adults with emphasis on non-credit classes.

___ G. An operational philosophy of education which is applied to all learning endeavors of the school system.

✓ H. Daytime (7:30 A.M. - 5:59 P.M.) programs and activities primarily for adults.

✓ I. A system for community development involving institutions and agencies working in cooperation and coordination with one another.

✓ J. After school and evening programs primarily for youths.

___ K. Other (Please write in appropriate descriptive statement.)

____

____

II. Please place a check mark (✓) next to those statements which describe current procedures used to determine community member needs. Place a double check mark (✓✓) next to the one statement which best describes current procedures used to determine community member needs.

___ A. A systematic utilization of procedures for determining community member needs does not exist.

The following procedures are used in your community.

✓ B. Observation by professional staff

___ C. Observation of funding trends

✓✓ D. Selection of programs and services by participants from comprehensive offerings

___ E. Board of education members identify needs

✓ F. Community council members identify needs

✓ G. Needs assessment instruments utilized by professional staff

✓ H. Needs assessment instruments utilized by community council members

✓ I. Inter-agency council members identify needs

✓ J. Selected community organization leaders identify needs

✓ K. Intuitiveness and judgement of professional staff

___ L. Volunteers or para-professionals making home visitations.

✓ M. Need assessments made by other community agencies

___ N. Other -

III. Please place a check mark (✓) next to those statements which describe current procedures used to determine goals and objectives. Place a double check mark (✓✓) next to the one statement which best describes current procedures used to determine goals and objectives.

___ A. Procedures for determining goals and objectives do not exist.

The following procedures are used in your community.

✓ B. Professional staff determine goals and objectives

✓ C. Community council members determine goals and objectives

___ D. Board of education members determine goals and objectives

✓ E. Inter-agency council members determine goals and objectives

✓✓ F. Professional staff establish goals and objectives based upon identified needs

___ G. Community council members establish goals and objectives based upon identified needs

___ H. Board of education members establish goals and objectives based upon identified needs

✓ I. Inter-agency council members establish goals and objectives based upon identified needs

___ J. Observation of funding trends

___ K. Other--

IV. Please place a check mark (✓) next to those statements which describe current procedures used to determine specific programs and services. Place a double check mark (✓✓) next to the one statement which best describes current procedures used to determine specific programs and services.

___ A. Procedures for determining specific programs and services do not exist.

✓ B. Professional staff determine programs and services

✓ C. Community council members determine programs and services

___ D. Board of education members determine programs and services

✓ E. Inter-agency council members determine programs and services

✓✓ F. Professional staff determine programs and services to meet goals and objectives

___ G. Community council members determine programs and services to meet goals and objectives

___ H. Board of education members determine programs and services to meet goals and objectives

___ I. Inter-agency council members determine programs and services to meet goals and objectives

✓ J. Utilization of available funding

___ K. Other--

V. Please place a check mark (✓) next to those statements which describe current procedures used to evaluate community education. Place a double check mark (✓✓) next to the one statement which best describes procedures used to evaluate community education.

___ A. Procedures for evaluating community education do not exist.

✓ B. Professional staff utilized in systematic evaluation

___ C. Community council members utilized in systematic evaluation

___ D. Board of education members utilized in systematic evaluation

✓ E. Inter-agency council members utilized in systematic evaluation

✓ F. Intuitiveness and judgement of professional staff utilized in systematic evaluation

✓✓ G. Program participants utilized in systematic evaluation

___ H. Other--

VI. Please indicate the number of full and part-time individuals employed directly or indirectly by your school system as community education administrators or coordinators. Do not include in your count principals, teachers or other school faculty who might be considered as community education advocates, however, are not employed as community education administrators or coordinators.

Figure 6.1

Personnel	No. of Full-time		No. of Part time	
	Male	Female	Male	Female
School Center C. E. Administrator/ Coordinator	1		4	
Regional C. E. Administrator/ Coordinator	2	1		
School System-wide C. E. Administrator/ Coordinator	1			

VII. Please use the following directions for completing Figure 7.1.

Column A - Place a check mark (✓) in Column A next to each type of community organization or agency which is working in cooperation with your school district in community education.

Column B - Describe the nature of cooperation for each type of organization checked in Column A by placing one or more of the following codes (1-7) in Column B.

(1) share financial resources
✓ (2) share staff members
(3) share buildings
(4) share equipment
(5) share land
(6) coordinate program and service efforts
(7) other--

Column C - Place an X in Column C if the cooperation is supported by written agreement.

Figure 7.1

A	B	C	Type of Community Organization
✓	3456		City government
✓	6	X	County government
✓	16		Federal government
✓	26	X	Community colleges
✓	126		Universities
✓	6		Agricultural extension
✓	2346		Business and industry
✓	6		Health departments
✓	6		Social services
✓	23456		Recreation departments
✓	6		Police departments
✓	346		Churches
✓	246		Senior citizen services
✓	16		Civic clubs (e.g., Jaycees, Civitan, Lions, Rotary)
✓	246		United Way (i.e. Community Chest, Red Feather)
✓	6	X	Judicial services
✓	123456		Other-- Fire College
✓	236		Other-- Chamber of Commerce

VIII. Please complete Figures 8.1-8.3 regarding school facility utilization.

Figure 8.1

	Elementary School Centers	Mid. & Jr. High School Centers	High School Centers
A. Total no. of schools in district	20	5	5
B. No. of schools designated as community school centers	18	3	5
C. Avg. no. of evenings per week that community school centers are open from 6:00 P.M. on	2	2	2
D. Estimate in percentage how much of each school center is utilized between 4:00-7:00 P.M.	10	2	100
E. Estimate in percentage how much of each school center is utilized between 7:00 - 10:00 P.M.	90	98	100
F. Rank order from 1-(X) the most utilized school facilities. Place a zero (0) in blank if facility not available in majority of school centers	1 basic classrms	1 basic classrms	1 basic classrms
	0 science lab	8 science lab	8 science lab
	0 art rooms	3 art rooms	4 art rooms
	0 gymnasium	4 gymnasium	7 gymnasium
	0 indust. ed. shop	2 indust. ed. shop	2 indust. ed. sh
	0 swimming pool	0 swimming pool	0 swimming pool
	0 homemaking lab.	5 homemaking lab	3 homemaking lab
	3 school grounds	9 school grounds	9 school grounds
	0 auditorium	7 auditorium	6 auditorium
	2 cafeteria	6 cafeteria	5 cafeteria
	0 conference rms	0 conference rms	10 conference rms
	__ others ______	__ others ______	__ others ______
	__ others ______	__ others ______	__ others ______

Do any school centers in the district house community agencies (e.g., family services, health clinics, social security)?

Yes ______ No ✓

If your response is yes, please list the name(s) of the school and the community agency(ies).

____

____

If facilities other than school centers are occasionally utilized in your community education endeavors, place a check mark (✓) next to the appropriate type(s) of facility or building in Column A of Figure 8.2. Of those marked, place a check mark (✓) in Column B if they are utilized on a weekly basis.

Figure 8.2

A	B	Type of Facility or Building	A	B	Type of Facility or Building
✓	✓	Church	✓		City government
✓	✓	Parks & recreation			County government
		Store			State government
✓		Library			Federal government
✓		Camp			Health clinic
✓	✓	University	✓	✓	Hospital
✓		Community college	✓	✓	Community center
✓	✓	Abandoned school			Union hall
✓	✓	Business & industry	✓	✓	Other--Fire College
✓		Agricultural extension	✓	✓	Other--Nursing Homes
		Vocational skills center			

Indicate in Figure 8.3 the number and type of organizations* utilizing school center facilities

Figure 8.3

No. of different organizations utilizing facilities in:	Elementary Schools	Middle or Junior High School	High School
Governmental			2
Volunteer Civic			4
Recreational Cultural			3
Business & Industry			5
Religious			3
Total			17

*See Glossary

IX. Please estimate the number of youth and adult enrollments in after school and evening classes/activities provided by your school system. Also estimate the number of youth and adult participations per week in after school and evening classes/activities provided by your school system.

A credit enrollment should be counted every time a name appears on any class list or roster, and wherein the student receives public school, college or university credit for his or her involvement (e.g., participants in high school completion, university courses). An individual's name should be counted every time it appears.

A non-credit enrollment should be counted every time a name appears on any class list, team roster or league ledger, and when no credit is received for involvement (e.g., participants of enrichment classes, baseball teams). An individual's name should be counted every time it appears.

A participation should be counted every time a person participates in a community education endeavor, and when no attempt is made to secure names of the people involved (e.g., participants in teen clubs, baseball game audiences, theater audiences) (Do not include credit and non-credit enrollments.)

Figure 9.1

	Credit Enrollments	Non-Credit Enrollments	Est. Weekly Avg Participations
Number of Youths	0	200	150
Number of Adults	1,000	2,500	400

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X. Please indicate the school district's utilization of community councils for community education by completing Figure 10.1 where appropriate.

Figure 10.1

	Local School Center Community Councils	Regional Community Councils	District-Wide Community Council
A. Current number of community councils	30		
B. Check (✓) function of council			
1. Advisory	✓		
2. Decision-making			
3. Both			
4. Other--			
C. Check (✓) selection procedure of council members			
1. Appointed			
2. Elected			
3. Voluntary	✓		
4. Combination of ___ & ___			
5. Other--			
D. Check (✓) term of service of council members			
1. 1 year	✓		
2. 2 years			
3. 3 + years			
4. No set term			
5. Other--			
E. Approximate number of members on each council	7		
F. Approximate number of meetings held in last 12 months	3		
G. Are there written guidelines for council members?			
1. Yes	✓		
2. No			

Are separate school center community councils maintained for after school/evening endeavors, or does one council serve all educational endeavors of a local school center?

___ Separate council

✓ Shared council

XI Please indicate sources and amount of revenue appropriated this fiscal year for community education in association with the school district. Do not include revenues generated from the Florida Educational Finance Program for the regular day-school instructional program.

Figure 11.1

Sources of Revenue	Amount Appropriated This Fiscal Year
A. State Community Education Grant	24,000.00
B. ABE Project	16,000.00
C. I.M.T.S. Individual Manpower Training System	27,000.00
D. FTE Revenue	550,000.00
E. Fees	15,000.00
F.	
G.	
H.	
I.	
Total	632,000.00

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XII. Please respond to the following questions regarding fee structure.

A. Do your community school centers operate from written fee schedules/policies for charging or not charging non-profit community organizations for school facility use? [✓ Yes] No ____

B. If yes, do these fee schedules/policies vary from school center to school center? Yes ____ [✓ No]

C. Overall, which of the following statements best describes the intent of fee schedules/policies for non-profit community organizations?

- ___ 1. no fee is charged
- [✓ 2. a standard fee is charged]
- ___ 3. a fee is charged according to the user's ability to pay
- ___ 4. an arbitrary fee is charged
- ___ 5. other ____________________

D. Overall, which of the following statements best describes the intent of fee schedules/policies for profit-making community organizations?

- ___ 1. no fee is charged
- [✓ 2. a standard fee is charged]
- ___ 3. a fee is charged according to the user's ability to pay
- ___ 4. an arbitrary fee is charged
- ___ 5. a fee based on percentage of profit is charged
- ___ 6. other ____________________

XIII. Please suggest actions the Florida Department of Education might take to facilitate growth of community education in your service area. (Use back of page if additional space is needed.

Continue to fund coordinators, hopefully at a higher level -- 7,000.00. The F.T.E. weight of community school classes should be raised and more realistic caps established. Tighter controls should be established on community education programs to insure honesty and continuity. District should be given incentives to upgrade community education programs.

Thank you again for your effort and cooperation.

Analysis - The Community Education Director's Questionnaire was designed to help identify the current nature and scope of community education in Florida public school districts. The final draft of the questionnaire was provided to the community education director of a county school district in north central Florida in order to examine the usability of each item of the questionnaire. A personal interview was held with the community education director after he completed the instrument to discuss each of the questionnaire items and ascertain weaknesses. The following is an analysis of each item and the data generated:

1. Glossary - a few minor changes were suggested and have been included in the instrument.

2. Item 1 elicits the respondents' perception of the nature and scope of community education in the district. The questionnaire revealed that community education is primarily for after-school and evening programs for youth and adults, with emphasis on non-credit classes that the participating school district includes in community education endeavors, daytime credit classes, interagency cooperative and coordinated involvement of community members in educational decision-making. (The item is valid. It does not restrict respondents, yet solicits data regarding the current nature of community education in the school districts being measured.)

3. Item 2 deals with current procedures for determining community member needs. School districts use a variety of methods, however, it is observed that the primary method is the selection of programs and services. (The item is valid. The director indicated that the item contained a comprehensive list of means for determining community member needs and that the item is clearly stated.)

4. Item 3 identifies current procedures for determining community education goals and objectives. The participating school district responses indicated that the goals and objectives are determined by the professional staff working in cooperation with selected community councils. (The item is valid. The personal interview revealed that this item was clearly stated and contained a comprehensive listing of alternative methods for determining goals and objectives.)

5. Item 4 identifies current procedures for determining specific programs. The programs and services are primarily determined by the professional staff with advice from selected community members. (The community education director stated that the item is clear and comprehensive.)

6. Item 5 elicited current procedures for evaluating community education. Professional staff, program participants and community council members are utilized in the evaluation of the community education endeavors. (The community education director indicated that the item was complete and clearly stated.)

7. Item 6 indicated the number of full and part-time individuals employed directly or indirectly by the school system as community education administrators or coordinators. The participating school system employs a total of nine individuals; five full-time and four part-time. The item also provided information regarding the number of male and females employed. (A suggestion made by the community education director was incorporated in the final questionnaire.)

8. Item 7 measures the nature of interagency cooperation to determine kinds of existing coordinated endeavors. There was much and diverse cooperation. (The interviewed community education director indicated the importance of the "other" category since the school district will often work with agencies unique to their community.)

9. The nature and scope of school facilities is measured by item 8. The completed questionnaire solicited valuable information regarding both the nature and scope of facility utilization. (The interviewed community education director indicated that the item was clearly stated and comprehensive in nature.)

10. Item 9 is designed to solicit an estimation of the number of youth and adults participating in community education endeavors. The completed questionnaire reveals emphasis on programs and services for adults. (There was difficulty in estimating the figures. The school district should be requested to maintain supportive records.)

11. The nature and scope of community education utilized is measured in item 10. The completed questionnaire reveals the number of community councils, their functions, selection procedures, term of members' service and other demographics regarding council administration. (This item is clearly stated and comprehensive in nature.)

12. Item 11 elicited the sources and amounts of revenue appropriated for this fiscal year in association with school districts. The total budget was $632,000. (This item is clearly stated.)

13. Item 12 elicits information regarding the use of fee structures and schedules. A written fee schedule was used by the district; the fee schedules are standardized for the entire school district. (The item was clear and comprehensive.)

14. Item 13 elicited suggestions that the Florida Department of Education might take to facilitate the growth of community education. (This was a very important part of the questionnaire since the item will solicit many suggestions.)

The community education director involved in this analysis stated that this questionnaire is both clear and thorough. He indicated the data generated from it would be of great value in the continued growth of community education in Florida.

RESULTS AND ANALYSIS OF PARENT DATA

Community Needs Survey

The data summarized below is from a random sample of parents from the Orange County schools. 86 forms were returned, out of 200 which were distributed to parents of 75 elementary, 75 middle and 50 senior high students.

Part a - Community Attitudes

The following priorities were given to 20 EPIC goals by the 86 Orange County parents. These goals are reflected in the ten EPIC components.

Likert Score by Priority	Teachers should help students to:
410	Make school interesting so that students will not drop out.
404	Develop skills for reading, writing, spelling, and communications and emphasize the relationship between academic subjects and skills required on the job.
394	Understand some general ways to make a living with an enjoyable job.
393	Develop positive attitudes for acquiring and maintaining a job.
390	Understand the development and workings of our economic system.
388	Plan for a career and be prepared to make realistic career decisions.
385	Explore the education and training requirements of a variety of different occupations.
385	Develop productive work habits for acquiring and maintaining a job.
383	Explore a variety of different occupations.
383	Arrange for workers to come to school and talk to students about their job or career.
381	Know how to conduct themselves during the job interview.
376	Observe a variety of different workers in the community through field trips, in order to qualify personal interests for different kinds of work.
376	Select academic and vocational courses to prepare for the eventuality of changing careers.
373	Know what jobs are available through continual contact with the school placement office.
373	Involve parents in understanding what is involved in making a career choice.

Likert Score by Priority	Teachers should help students to:
368	Complete assigned tasks with a minimum of supervision.
366	Appreciate a work-oriented life style.
355	Develop specialized skills for a variety of different jobs and careers.
346	Place values on the working conditions and life styles inherent in different careers.
323	Have at least one paying job before leaving school.

Community members have been involved with the following goals as part of their school's program:

Members Involved	Goals
10	Observe a variety of different workers in the community through field trips, in order to qualify personal interests for different kinds of work.
10	Plan for a career and be prepared to make realistic career decisions.
8	Arrange for workers to come to school and talk to students about their job or career.
7	Develop positive attitudes for acquiring and maintaing a job.
6	Develop skills for reading, writing, spelling, and communications and emphasize the relationship between academic subjects and skills required on the job.
6	Develop productive work habits for acquiring and maintaining a job.
5	Involve parents in understanding what is involved in making a career choice.
4	Understand some general ways to make a living with an enjoyable job.
4	Know how to conduct themselves during the job interview.
3	Understand the development and workings of our economic system.
3	Explore the education and training requirements of a variety of different occupations.
3	Develop specialized skills for a variety of different jobs and careers.
2	Place values on the working conditions and life styles inherent in different careers.

Members Involved	Goals
2	Have at least one paying job before leaving school.
2	Make school interesting so that students will not drop out.
1	Appreciate a work-oriented life style.
1	Select academic and vocational courses to prepare for the eventuality of changing careers.
1	Complete assigned tasks with a minimum of supervision.

The overall comments of the 86 parents are listed below in the order of the ten EPIC components:

- These things should be done during a student's education in grades K-12.
- I think it is a good program, but I'm not involved enought to give a good opinion.
- I don't believe the instructional program is working to its full potential. Students are being taught useless information which has little bearing in the real world.
- Great goals. Should be used in all grades.
- We have a career education program at our school and we are pleased with the results. This is like Motherhood and Apple Pie - how could you possibly disagree?
- This sounds vocational oriented - while I prefer a blend of vocational training and academic training.
- This is a swing too strongly headed for vocational training. Let's keep a strong scholastic study program also for those who need it. You seem to be aiming towards the non-college preparatory program.
- Education is more than books. It is being able to apply the education they have to their future.
- Our school, Lake Weston Elementary, has a fantastic program pertaining to career education. All staff is interested in its progress and development.
- This instrument doesn't seem to be consistant with regards to approach and scope.
- I am appreciative of your efforts, but question your approach. The directions for the enclosed questionnaire are not clear. The choices may not clearly reflect the information sought.
- I think ignorance to all of the different and good careers has been a set-back to many students. I think the above goals are excellent.
- My son is too young to think about work, he is only ten years old.
- I feel that all of these goals are important to fit students for a chosen career.
- Stop the smoking on school grounds, give the children something to look forward to to stop this boredom.
- I think that children should be taught that a job can be fun and rewarding - not drudgery - if they plan well and get into something they like.
- Any program developed to aid the student in the working world is long overdue.
- The questions asked were very good and should be a part of the school's program.

- More emphasis on character building with fear of God and less on sex and rebellion to regulations - respect to others.
- Teaching a student plain common sense is important.
- I would not like to see career education pushed to the detriment of course material designed to prepare a student for college and the possibility of a professional career.
- These are good ideas. A person works longer than he goes to school and should be prepared and know what to expect in a career.

- Program gives exposure to different careers which students might not be aware of if not for school.

- Counselors should do their job of counseling instead of treating all students with an attitude of indifference.
- I feel that if our students were exposed to this type of an education, they would be prepared for their future. Our elementary students are getting good career exposure.
- Find what a child is best at and train the child in this area.
- My career field has changed since I left school. Other academic subjects, had I realized it, and spent more time at it, would have helped me tremendously.

- I find the exposure to careers excellent but would like more emphasis on basics and handwriting.
- If children know how to get along with people they can handle all situations. This is very good, but I would like a more academic oriented program - more towards getting along with people in any phase of life, whether on a job interview or school situation or social situation.
- Strong academic habits lead to strong work habits eventually.
- Stress the importance of reading - do not promote from elementary school until they are ready. Too many enter junior high, become frustrated with even the basics. The above won't help as many as it should if they feel inadequate to begin with.
- There is not enought time or effort spent on the fundementals of general learning in order to prepare the child for a job later on.

- Question #20 seems to be the most important - especially in junior high school where interest in school seems to dwell.
- Students are getting the answers through career education - why school is necessary - it motivates students.
- I had one son drop out in twelfth grade because he wasn't learning and felt a job was more important and my daughter has already talked about quiting at sixteen, and at sixteen, the parents don't have any say about it.

- I am concerned at the quality of the teachers in the classroom today. Are they there to help our children or just draw their pay check?
- Need for a full time career education person is great.
- The school placement office needs to contact more students than it is presently.

- A great idea if people will get involved.

- Facilities are somewhat limited as to present certain workings mentioned above.

Part b - Community Facility and Program Needs

Below are the community member responses to the following goals:

Likert Score by Priority	Goals
342	Make community members aware that education is a life-long process.
331	Prepare community members for the productive use of leisure time.
304	Provide education, recreational and cultural services for every interested member of the community on a year-round extended-hours basis.

Adequacy of Program, Service, Facility, Agency

The adequacy of each is listed below in descending order, according to community member responses:

Number of Responses	Program, Service, Facility, Agency
81	Churches.
79	Radio stations.
75	T.V. stations.
73	Little League programs.
69	Community colleges.
69	Parent-teacher association.
67	Public library.
66	Community schools.
65	Newspapers.
64	University.
63	United Fund.
62	City council.
61	Civic groups.
60	Boy/Girl Scouts.
58	YMCA.
58	Social security office.
57	Health department.
56	Evening courses to benefit adults of all ages with training, vocational, and craft skills.
56	Band concerts.
55	Free food program.
55	Family planning clinic.
55	Junior Achievement.
55	Welfare agencies.
53	Agricultrual Extension Agent.
52	Child care agencies.
52	Employment agencies.
52	Private schools.
52	County Commissioners.
50	Health spa.
50	Police.

Number of Responses	Program, Service, Facility, Agency
6	Private schools.
7	City council.
8	Public library.
8	Little League programs.
8	University.
8	Community colleges.
8	United Fund.
8	Junior Achievement.
8	Agricultural Extension Agent.
9	Civic groups.
9	Community schools.
9	Parent Teacher Associations.
11	Free food program.
12	County Commissioners.
13	Welfare agencies.
13	Foster child agency.
14	Social security office.
14	Family planning clinic.
16	4-H Club.
16	Band concerts.
17	Health department.
17	Boy/Girl Scouts.
18	Newspapers.
18	Employment agencies.
19	Evening courses to benefit adults of all ages with training, vocational, and craft skills.
19	Health spa.
19	Housing authorities.
20	Bureau of Rehabilitation Services.
21	YMCA.
21	Child care agencies.
22	Manpower Planning Council.
24	Housing program.
26	Bi-lingual education.
28	Radio, T.V., or commer cial educational T.V. programs, e.g., careers, child development, continuing education, etc.
29	Cultural programs, e.g., local playhouse, choral, musical groups.
30	Neighborhood Youth Crop.
31	Program for the handicapped.
32	Police.
33	Nursing homes.
34	Program for the mentally retarded
34	Newsletters to community families announcing special educational programs.
38	Adult employment program.
38	Adult recreation program.
40	Volunteers to work with programs, e.g., tutors, library and teacher aides, playground or lunchroom coordination, homeroom mothers, etc.
40	College recruiting sessions which present career and occupational trends rather than majors or minors.
40	Skating rink.
41	City beautification project.

Number of Responses	Program, Service, Facility, Agency
47	Foster child agency.
45	Cultural programs, e.g., local playhouse, choral, musical groups.
45	4-H Club.
42	Radio, T.V., or commercial education T.V. programs, e.g., careers, child development, continuing education, etc.
40	Bi-lingual education.
39	Housing authorities.
38	Newsletters to community families announcing special education programs.
38	Volunteers to work with programs, e.g., tutors, library and teacher aides, playground or lunchroom coordination, homeroom mothers, etc.
37	Program for the handicapped.
37	Nursing homes.
37	Skating rink.
36	City beautification project.
36	Adult recreation program.
36	Bureau of Rehabilitation Services.
35	Program for the mentally retarded.
35	Housing program.
35	Community facilities for day-time education use.
33	Adult employment program.
31	Neighborhood Youth Corp.
27	Anti-drug abuse program.
26	Program to help the aged.
26	Manpower Planning Council.
24	Community problem-solving programs developed by Citizen Advisory Councils.
24	College recruiting sessions which present career and occupational trends rather than majors or minors.
24	Senior citizens shuttle service to aid people attending meetings, shopping, etc.
23	Safety in the neighborhood program.
22	Supervised recreation for children to develop sports, artistry, crafts, and musical talents.
21	School facilities for after-hour recreation, counseling, employment, or health care use.
18	Public swimming pool.
8	Anti-vandalism program.

Inadequacy of Program, Service, Facility, Agency

The inadequacy of each is listed below in ascending order, according to community member responses:

Number of Responses	Program, Service, Facility, Agency
2	Churches.
2	Radio stations.
5	T.V. stations.

Number of Responses	Program, Service, Facility, Agency
41	Community problem-solving programs developed by Citizen Advisory Councils.
41	Community facilities for day-time educational use.
44	Program to help the aged.
44	Senior citizens shuttle service to aid people attending meetings, shopping, etc.
48	Anti-drug abuse program.
52	Safety in the neighborhood program.
56	School facilities for after-hour recreation, counseling, employment, or health care use.
60	Supervised recreation for children to develop sports, artistry, crafts, and musical talents.
60	Public swimming pool.
70	Anti-vandalism program.

Program, Service, Facility, Agency which is Consistently Adequate

The following are in the top twenty of the two preceeding lists, therefore, they are consistently adequate:

- Churches.
- Radio stations.
- T.V. stations.
- Little League programs.
- Community colleges.
- Parent Teacher Association.
- Public library.
- Community schools.
- University.
- United Fund.
- City Council.
- Civic groups.
- Social security office.

Program, Service, Facility, Agency which is Consistently Inadequate

The following are in the bottom twenty of the two preceeding lists, therefore, they are consistently inadequate:

- Skating rink.
- City beautification project.
- Adult recreation program.
- Program for the mentally retarded.
- Adult employment program.
- Anti-drug abuse program.
- Program to help the aged.
- Community problem-solving programs developed by Citizen Advisory Councils.
- College recruiting sessions which present career and occupational trends rather than majors or minors.
- Senior citizens shuttle service to aid people attending meetings, shopping, etc.
- Safety in the neighborhood program.
- Supervised recreation for children to develop sports, artistry, crafts, and musical talents.
- School facilities for after-hour recreation, counseling, employment, or health care use.
- Public swimming pool.
- Anti-vandalism program.

Program, Service, Facility, Agency which is being used beyond the Normal Working Day

Listed below are the facilites being used beyond the normal working day, according to community member responses of two or more only:

Number of Responses	Facility
12	Public library.
2	Evening courses to benefit adults of all ages with training, vocational, and craft skills.
2	Radio, T.V., or commercial education T.V. programs, e.g., careers, child development, continuing education, etc.

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Other programs, services, facilities or agencies which do not now exist and are needed by the community:

- Answers for 2 through 26 are for the unincorporated areas of Orange County.
- Animal control - ASPCA.
- Pine Hills, our nearest community, lacks many of the above.
- A comprehensive summer day school recreational series of planned, coordinated activities at public parks and schools for all children in the community.
- Need more recreational facilities like bike trails, pools, tennis courts. Need more money for public schools, less for private. (I believe in the public school system and am sad to see so many withdrawn to private schools instead of channeling time and energy and money to public schools.)
- The boys and girls in the Pine Hills area have no place to go skating, swimming, or any other decent place to go and have an evening or day of clean fun. We have a few game rooms but they are nothing but hang-outs and what was meant to be a place for the kids to go and have clean fun has turned out to be just the opposite. If we have the facilities, let's have decent people to run them and keep them decent for our kids who want to have clean fun.
- Tennis courts and park facilities.
- Unemployment offices in Pine Hills area. Job location facilities in Pine Hills area. Better Business Bureau in Pine Hills area.
- Youth programs under adult supervision. More drug alertness. The hazards of vandelism. Community gatherings and cooperation.
- A good Christian program or like WFME in New Jersey.
- T.V. programs 24 hours a day. Another major newspaper (unbiased). More youth centers (chaperoned dances, games, etc.). Dance halls for all ages. Saturday morning or matinee movies for children (50ç set price) in all neighborhoods. Farmers market (year round) - free stalls for local farmers.
- Little League programs.
- Civic auditorium.
- I think this would be an excellent idea. Senior citizens, armchair travelers and those who could not afford such trips would and could enjoy this feature.
- Bus transportation.
- Youth recreational opportunities. Fuller use of schools for recreation and remedial purposes after school and during summer. Especially for elementary ages.
- Recreation facilities for children after school hours and weekends would be a great help. Summer activities would be a great benefit, organized by schools. A public pool would be a great asset to our community in Orange County.
- Would like to see more programs geared for junior high level (the age when children are too old for recreation departments and too young to work). Junior high seems to be the one lacking in interesting programs.
- Decent zoological/botanical area.
- Places to care for the old people that do not cost a fortune.
- We need public swimming facilities with proper training. The facility should be free or a nominal charge should be made. Recreational programs of all types are lacking. One has to join a recreation club or have transportation to go the distance to avail themselves of present facilities.
- Somewhere the children and teens can go instead of playing or hanging around the street corners. A skating rink.
- A dental clinic based on a sliding fee scale for low income families. Not for welfare families, but for working families with low income.
- Another newspaper to contrast opinions. We're very disappointed in a city this large only circulating one newspaper. Youth recreation to serve community.

Part c - Community Educational Courses

The following number of Orange County parents (out of the sample of 86 parents) have indicated that they would like to enroll in the courses listed below, if they were offered at an appropriate time and place in the community. (Only preferences of two or more are listed.)

Number of Responses	CONSTRUCTION	Number of Responses	RETAILING/WHOLESALING
27	Landscaping	17	Antiquing
21	Home Repair	14	Small Business Operation
13	Modern Math	11	Window Display
12	Carpentry	8	Advertising
10	Do-it-Yourself Wiring	8	Consumer Education
10	Wood Shop	6	Consumer Behavior
8	Do-it-Yourself Plumbing	5	Modeling
7	Architecture Design	4	Introduction to Marketing
7	Basic Electricity	3	Fashion/Apparel Marketing
6	Cabinet Making	3	Marketing Research
3	Algebra	3	Retailing Management
3	Blueprint Reading	3	World Trade
2	Drafting	2	Sales Management
		2	Small Business Prom./Publicity
	MANUFACTURING		**BUSINESS/OFFICE/ACCOUNTING**
28	Furniture Refinishing/Repair	17	Speed Writing
19	Upholstery	16	Accounting
10	Auto Body Repair	16	Typing
10	Weaving	15	Bookkeeping
9	Crafts/Metals/Leather	12	Secretarial
9	Welding	11	Shorthand
8	Dyeing wool/yarn/fabrics	10	Business Law
7	Glass Blowing	10	Office Machines
6	Bicycle Repair	9	Computer Programming
5	Carburetor Repair	7	Business English
4	Auto Upholstering	7	Business Psychology
4	Model Building	7	Keypunch Operator
4	Outboard Motor Repair	6	Computer Mathematics
2	Motorcycle Maintenance	5	Data Processing
		3	Managerial Skills
	BANKING/INS./R. ESTATE/SEC.		**MASS COMMUNICATIONS**
25	Getting the Most for Your $	20	Creative Thinking
17	Retirement Preparation	18	Creative Writing
15	Investing to Beat Inflation	17	Accelerated Reading
12	Insurance	14	Spelling and Vocabulary
11	Estate Planning	11	Photography
11	Home Buying and Selling	9	Silk Screening
7	Money and Banking	8	Cartoons
6	How to Buy on Credit	7	Radio/T.V. Troubleshooting
5	Monetary Theory and Policy	6	Communication Skills
5	Principles of Economics	6	Debate
2	Corporation Finance	4	Applied Phonetics
2	Credit/Collection Management	4	Lettering
		3	Journalism
		2	Printing

Number of Responses	ENTERTAINMENT/ARTS
24	Guitar
12	General Art
12	Piano
10	Sculpture
9	Banjo
6	Modern Dance
4	Choral Group Singing
4	Drama
4	Music Appreciation
2	Interpretive Dancing

Number of Responses	HEALTH
21	Drug Abuse
18	First Aid
13	Medical Secretary Training
12	How to Stay Healthy
12	Psychology
10	Family Health
9	Child Development
9	Home Nursing
9	Nutrition
8	Mental Health Services
7	Speech Therapy
5	Nurses Aide
4	Diabetic Cooking
4	Expecting Parents Class

	PERSONAL/HOTEL/RESTAURANT
24	Gourmet Cooking
22	Interior Decorating
20	Pottery
19	Gardening
15	Grooming/Makeup
15	Home Management/Family Finance
7	Self Hypnosis
6	Appliance Repair
6	Child Care
6	Dog Obedience School
5	Astrology
5	Health Foods
5	Wig Styling
3	Tailoring
3	Wine Making

	SCIENCE/TECHNOLOGY
11	Ecology/Pollution
10	Oceanography
5	Biology
5	General Science
4	Botany
4	Energy Sources
4	Marine Technology
3	Chemistry
3	Zoology
2	World Geography

	GOVERNMENT/UTIL./PUBLIC SERV.
20	Swimming Lessions
15	Slimnastics
15	Career Guidance for Youths
13	Self Defense, Men/Women
10	Civil Service Tests
10	Sex Education in the Family
9	Social Dancing
7	Karate
6	Criminal and Social Justice
6	Law Enforcement
3	Changing World and Times
3	Scuba Diving
3	Yoga
2	Interviewing Techniques

	FARMING/RANCHING/NATURAL RES.
11	Organic Vegetable Gardening
11	Soils, Fertilizers
11	Wilderness Survival
8	Conservation
7	Plant Propagation, Grafting
6	Rock Collecting
5	Forestry Technology
5	Part-Time Farming
5	Tree Pruning
4	Fish & Game Preservation
3	Local Wildlife and Bugs
2	Breeding Animals
2	Raising Meat, Milk, Eggs

Number of Responses	TRANSPORTATION
15	Trips and Tours
11	How to be a Host/Hostess
8	Boating Safety
8	Travel Film Series
7	Driver's Training
7	How to Plan a Vacation
7	Small Boat Navigation
5	Aviation Ground School
5	Diesel Engines
5	Introduction to Flying
4	Motor Home Traveling
4	Skydiving
3	Aeronautics
2	Vehicle-Oriented Society

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FINDINGS AND CONCLUSIONS

Findings 1a

1. 5 of the 10 items were retained as having adequate reliability.

2. The results were statistically significant (at the 0.05 level) by grade and treatment effects.

(Unless otherwise stated, significance throughout this section is at the 0.05 level.)

Conclusion 1a

1. More items should be added to made the instrument adequate for decisions about individual students.

2. If a strong economic program emerges in the schools, the item pool could be enlarged to include the objectives of these programs.

Findings 1b

1. 20 of the 25 items were retained as having adequate reliability.

2. The items are capable of discriminating grade and treatment effects.

3. The items are satisfactory for research using group data.

Conclusions 1b

1. More items should be added to make the instrument adequate for decisions about individual students.

2. The item pool could be enlarged to include the objectives of economic programs.

Findings 1c

1. 25 of the 40 items were retained as having adequate reliability in both the post-tests and Orange County re-test. The items are good for research with groups and evaluation of individuals.

2. 88% of the items selected from the post-test data were supported by the Orange County re-test sample.

3. Items were able to distinguish treatment in one out of three cases, and grade level (at the 0.10 level of significance) in two out of three cases (in Broward and Orange Counties).

4. The average level of economic knowledge is low (63.4% for all groups).

Conclusion 1c

1. The instrument is marginal for decisions about individuals (but better than instruments 1a and 1b).
2. The item pool could be enlarged to adapt to economic education programs.
3. The use of the 25 items from the 1c test was supported by an independent sample of students. The reliability for that sample was as high as many standardized tests.

Findings 1d

1. 20 of the 40 items were retained as having adequate reliability.
2. The items are good for research and evaluation, but not for decisions about individuals unless merged with other reliable items.
3. There were no significant discriminations for either treatment or grade level.
4. The average level of economic knowledge is low (66.5% for all groups).

Conclusions 1d

1. The items will take on additional stability and discrimination ability when merged with the items from the 1c instrument.

Overall Findings - Instruments 1a, 1b, 1c, 1d

All instruments except the 1a instrument reached acceptable levels for their use as research and evaluation tools.

All instruments can be improved in reliability by adding more items. This would be of critical importance only if they are to be used for making decisions about individual students. The 1b instrument was the most adept at making discriminations between grade level and treatment groups. The 1c instrument was able to make statistically significant discrimination in two out of four cases. Only the 1d instrument was unable to make any statistically significant discriminations. The increase in economic knowledge between middle school and high school is not great. The overall level of economic knowledge at the high school level is not high. Lack of programs to teach economic principles and practices seems likely to contribute to this problem.

Findings 2a

1. The test results are significant at the 0.05 and 0.01 level for grade, treatment, effect and district effects.

2. The test indicates a possible ceiling effect at the high school level.

Conclusions 2a

1. This test has demonstrated a continual history of significant discrimination.

2. The possible ceiling effect at the high school level should be tested.

Findings 2b

1. The test results are significant at the 0.05 level for treatment and grade level discrimination.

2. There is a possible problem of inter-scorer reliability in that the test requires hand scoring and scorer judgement of responses.

Conclusions 2b

1. The test has demonstrated good discrimination ability.

2. The data reduction process may be costly for large scale data collections.

3. Inter-scorer reliability should be tested.

Findings 2c

1. There is a ceiling effect with 7th and 8th graders as 4th graders are scoring as well as 7th and 8th graders.

Conclusions 2c

1. The test should be eliminated from the EPIC battery.

Findings 2d

1. This test discriminates successfully at the 0.05 level of significance for grade and treatment effect.

2. There is no ceiling effect for eighth graders.

Conclusions 2d

1. The test has demonstrated good discrimination ability.

2. The instrument should be pilot tested with ninth graders and higher grades.

Findings 2e

1. This test has sufficient reliability for research and evaluation with 60 items retained out of 104 items.

2. Of the 60 items, 72.5% were supported by the Orange County re-test sample.

3. Without removing any items, the 60 items selected for the post-test data produced an excellent KR-20 reliability of 0.83. This reliability is in a range that is obtained with most standardized tests.

Conclusions 2e

1. The reliability of 60 items is excellent for research and evaluation purposes, and is in a range comparable to most standardized tests.

2. The reliability is marginal for decisions about individual students.

3. The selection of 60 items based on the total post-test sample produced an excellent reliability when a new and independent sample from Orange County was tested.

Findings 2f

1. This test has sufficient reliability for research and evaluation with 60 items retained out of 104 items.

Conclusions 2f

1. The reliability of 60 items is excellent for research and evaluation purposes, and is in a range comparable to most standardized tests.

2. The reliability is marginal for decisions about individual students.

Findings - 3a

1. There was a significant difference in knowledge of career planning between career education and control students. The difference favored the career education students.

2. Knowledge of career planning did not translate into increased career planning activities for the students in this sample. On all measures, the control students showed small and non-significant advantages over the career education students.

3. While there were no differences between groups, the Career Planning Activities Checklist and Talking About Careers section showed a tendency for older students (in grades ten and eleven) to have higher scores than younger students (grades seven through nine).

Conclusions - 3a

1. Career education students show higher levels of knowledge about career planning, but that is not translated into greater levels of career planning activities than are exhibited by students at control schools.

2. Older students in both career education and control schools showed higher levels of career planning activities than younger students.

Findings - 3b

1. Career education students from middle/junior high school through senior high school showed lower numbers of occupations in which they are interested. This difference was statistically significant. Combined with the higher levels of knowledge that career education students demonstrate on other instruments, this indicated that they have begun to narrow their career interests.

2. There is a non-significant tendency for career education students to list more occupations in which they have "no interest". This tendency is also consistent across grades seven through eleven.

3. The numbers of students reporting a career choice, with course(s) taken relevant to their career choice, and the training level required to achieve their career choice was similar in both career education and control samples.

Conclusions - 3b

1. Career education students show a tendency to narrow the careers in which they are interested as early as the seventh grade. At seventh grade and above, career education students show a consistently fewer number of occupations in which they are interested as possible careers.

2. Part c of the instrument showed no significant differences between career education and control students. It should either be deleted or retained only for individual counseling purposes, and not to be included in the data reduction.

3. These results were as strong at the middle school level as in the high schools, indicating that the career programs, even at the middle schools, lead students to narrow their career choices earlier in life.

Findings - 4a

1. There does not appear to be significant differences between experimental/ control groups or between grade levels.

Conclusions - 4a

The method of scoring should be revised, as follows:

1. Use student comments to check for the inclusion of all open items.
2. Submit revised lists of items to EPIC members, using a Likert-type scale to distinguish between EPIC member preferences for each item.
3. Develop scoring key around ten most preferred and ten least preferred items for each of the four parts of the instrument.
4. Score one point for each student selection of an EPIC preferred item.

Findings - 4b

1. Career education students report more occupational skills than do control students (significant at the 0.10 level).
2. Career education students report more skills than control students on the job, at school, and other places. The number of skills acquired on the job shows a statistically significant difference between career education and control students (at the 0.10 level).
3. Control students report learning more job skills at home than do career education students, but this difference is not significant.
4. The number of skills reported within occupational category varied from 5.7% to 10.1% of the total number of skills.

Conclusions - 4b

1. Career education students reported a significantly higher number of work skills than did control students. While career education students reported learning more work skills at school, on the job and in other situations, only the number learned on the job was significantly higher than that reported by control students.
2. While the skills reported within occupational category varied, there was no area with a disproportionate number of skills reported.

Findings - 5a

1. This instrument was modified during the post-testing period due to the difficulty of second grade students with some of the words. This change limited the comparisions that could be made.
2. Across the eight items with identical wording, only one item produced a significant difference. Control students perceived their teacher liking them more frequently than did career education students.
3. Other items showed very minimal differences; none were significant.

Conclusions - 5a

1. Wording changes limited the comparisons possible with this instrument.

2. While there was do difference in most attitudes toward school, more control students perceived their teacher as liking them than did career education students.

Findings - 5b

1. There were no significant differences either in total scores or item scores for either section of this instrument.

2. Students exhibited slightly more positive attitudes toward the statements on careers than they did toward the statements about school.

3. Students showed a strong tendency to want to remain in school, but wish to work while staying in school.

4. Students think that preparing for a career is less necessary in elementary and middle/junior high school than in high school.

Conclusions - 5b

1. These instruments were unable to detect a significant difference between career education and control student's attitudes toward school or careers.

2. Students respond strongly that they don't want to drop out, but are also inclined toward working. This indicates a need for more work-study programs that allow students to graduate, but also to work while they are studying.

Findings - Critique

1. Only 6% of the middle and/or junior high and senior high students found the EPIC instrument battery a negative experience.

2. One-third of the students reported that the instruments were similar to experiences gained from the instructional staff.

3. Student preferences were lowest for the economics instruments (1c, 1d, 1e).

4. The career planning (3a, 4a) and career choice (3b) instruments were most preferred by the students.

5. Students preferred the survey instruments more than the forms which tested knowledge.

6. 23.7% of the middle/junior high students and 18.8% of the senior high students indicated that they needed the exposure to the EPIC instrument battery to help them "get going" with ther career planning.

Conclusions - Critique

1. Student preferences for the EPIC instruments suggested a need for student exposure to the battery. This exposure is not being duplicated presently by instructional staff to any great degree.

2. Student career planning may be accelerated through exposure to the EPIC instrument battery.

Findings - Teacher Questionnaire

1. Using an EPIC index of economic and career education teaching activities, there was a substantial difference between the EPIC index scores at the elementary level in favor of the career education schools. At the middle schools, this difference was clearly in favor of the career education schools but the size of the difference was less. At the high school level, there was no difference between the career education and control schools.

Conclusions - Teacher Questionnaire

1. This data clarifies many of the results that were obtained in the student testing. The student testing consistently produced significant differences between treatment groups at the elementary and middle school levels. At the high school level, differences were much less frequent. The teacher's reports of activities relevant to the EPIC components indicated that the reason for these findings is that there is little difference between the "career education" high schools and the "control" high schools in terms of the instructional activities reported here.

Findings - Career Education Director's Questionnaire

1. Elementary school teachers have the highest percentage of exposure to career education in-service programs (41.9%), middle school teachers have a lower exposure (26.7%) and high school teachers have the lowest exposure rate (18.3%).

Conclusions - Career Education Director's Questionnaire

1. The greater exposure of elementary and middle school teachers to in-service career education programs tends to support and explain the greater number of career education activities at these schools. This may also explain the frequency of findings of significant differences between career education and control schools at these levels.

2. The creation of student career education profiles would allow research into the causative basis and contribution of these programs.

Findings - Placement/Follow-Up Director's Questionnaire

1. Placement/follow-up services vary considerably from district to district.

2. Placement/follow-up data is difficult to interpret without state-wide or other comparative data on the results of services.

Conclusions - Placement/Follow-Up Director's Questionnaire

1. Placement/follow-up data cannot be properly interpreted without comparative and results data.

Findings - School Coordinator's Questionnaire

1. The following are valid independent variables for elementary schools:
    a. Field trips and three or more field trips.
    b. Career days/fairs.
    c. Workers visiting classrooms to discuss careers.
2. The following are invalid variables for elementary schools:
    a. Identification and referral of early school leavers.
    b. Reasons for dropouts.
    c. Shadowing experiences.
    d. Employer-based cooperative programs.
3. The following are valid variables for middle and senior high schools:
    a. Percentage of enrollment identified as early school leavers.
    b. Program for the identification of potential early school leavers.
    c. Program for the referral of potential early school leavers.
    d. Current data file with reasons for dropouts.
    e. Field trips and three or more field trips.
    f. Shadowing experiences.
    g. Employer-based or vocational cooperative programs.
    h. Career days/fairs.
    i. Workers visiting classrooms to discuss careers.

Conclusions - School Coordinator's Questionnaire

1. There are a number of valid independent variables which can be tested for relations to student performance.
2. A study should be conducted to determine which independent variables are valid and reliable indicators of student performance.

Findings - Community Education Director's Questionnaire

1. Provides useful information but requires state-wide or other comparative data to make reasonable interpretation possible.
2. The data can be a useful evaluation tool when combined with state-wide comparative data and data from the Community Needs Survey.
3. The questionnaire items are clearly worded and comprehensive.
4. Items requiring exact attendance data may be difficult to obtain in some districts due to the lack of appropriate records.

Conclusions - Community Education Director's Questionnaire

1. The Community Education Director's Questionnaire is clear and comprehensive.

2. The data needs a community needs survey such as state-wide or other comparative data to provide useful evaluation results.

Findings - Community Needs Survey

1. All except one of the EPIC goals listed in the survey obtained wide support from the Orange County community people surveyed. These goals obtained an average rating of between four and five on a five point scale.

2. Community members rate the need for community education programs lower than the need for career education programs.

3. Agencies tended to be highly rated while services (some of which may be the responsibility of highly rated agencies) were rated much lower.

4. The survey seemed to be a useful method of providing information on potentially useful community education programs.

Conclusions - Community Needs Survey

1. There is wide support among community members for goal statements relecting the ten EPIC components.

2. The Orange County community tended to agree with EPIC members in terms of their highly rated needs for career education as compared to their needs for community education.

3. The information on the involvement of community members in career education programs within the schools can be useful as an index of community participation.

4. The survey of agency adequacy should focus on the services provided rather than global ratings of the agencies themselves.

5. The survey provided useful information on community education programs.

IMPLEMENTING THE EPIC EVALUATION SYSTEM

The preceding chapters contain the complete developmental history of the EPIC evaluation system. They are recorded in this final report for continual reference as the system is implemented.

A series of implementation documents should emanate from this final report. The first will be the Evaluation Guidelines for elementary, middle and secondary education levels. They will be reorganized for implementation purposes as the Evaluation Guidelines are written. The guidelines will also contain modified versions of the EPIC instruments. The instrument modifications will be based on the Results and Analysis, Findings, Conclusions and Recommendations of this report. Only valid items at reliable cutoff levels will be used.

These documents should be developed through continued working relationships with the Orange, Broward and Pinellas school districts. The Evaluation Guidelines, will be organized as follows:

1) Instruments and guidelines for collecting elementary student performance data.

2) Instruments and guidelines for collecting middle and junior high student performance data.

3) Instruments and guidelines for collecting senior high student performance data.

4) Instruments and guidelines for collecting data from school administrators, staff and parents.

Administrative items are included in the battery for the purpose of providing valid questions for use by lay-community members in local districts. Should any of the administrative items be redundant or in conflict with existing Department of Education data systems, the instrument would be subject to D.O.E. determination as to whether or not the instrument should be implemented in the D.O.E. system. This should not necessarily eliminate the items or instrument as a useful vehicle for lay-community members.

It is anticipated that, as the EPIC evaluation system is implemented, a profile of student, staff, administrative, and community performance would resemble the following:

1) Enroute to making realistic career decisions, the student begins to appreciate the workings of our economic system and the fundamentals of a work-oriented life style.

2) After exploring a number of occupations based on personal interests and labor-market information, the student investigates the education, training, licensing, and union requirements of a potential career area.

3) The student becomes familiar with working conditions, language used on the job, salary ranges and fringe benefits, and begins to form some personal job expectations.

4) Through continual contacts with community workers, and hands-on work experiences, the student begins to prefer certain jobs over other jobs.

5) The student is exposed to a checklist of career planning activities, may be identified as a "probable dropout", and is guided toward realistic career decisions.

6) The student is encouraged to develop skills in reading, writing, computation and communications as well as more specialized skills for employment-entry in a particular career area, and in anticipation of changing careers.

7) The student is encouraged to practice for the job interview, to develop productive work habits, personal traits and mannerisms which will accommodate the work-team.

8) The student is encouraged to make contact with the school placement advisor, and to benefit from at least one paying job before leaving high school.

9) The staff is encouraged to bring all students to local places of work; to invite workers to visit students and discuss their careers; setup career days and career centers, and to involve students in work programs and other situations where students may watch the performance of community workers.

10) The staff is also encouraged to merge career and economic activities into their ongoing academic course structures.

11) The staff is encouraged to issue student grades based on the completion of assigned tasks with a minimum of supervision, and to issue certificates to students who master specified employment-entry skills.

12) The staff is encouraged to involve parents in counseling sessions with students; to share the accountability for student performance with counselors and occupational specialists; and to work in industry one month of each year.

13) Staff members are encouraged to develop a better knowledge of our economic system in the areas of:

    Profit
    Productivity and the Market
    Labor Market Demand
    Consumer Economics
    Business Cycles and Monetary Policy
    The Roles of Government
    International Trade and Monetary Policy
    Comparative Economics

14) **Community members are encouraged** to coordinate local facility utilization with contact personnel and to provide educational, recreational, and cultural services on a year-round, extended-hours basis for every member of the community.

15) Community members are encouraged to participate in the development of educational policies and in the evaluation of resulting programs.

As the evaluation system is implemented, EPIC, Inc. will turn its attention to coordinating a statewide business consortium to involve local business and community leaders in evaluating their own local schools' efforts to better prepare Florida students for the real economic world.

Student Benefits of the Evaluation System

1) Career Planning Information - The system provides the current status of the student's career planning activities and decisions.

2) Knowledge Required - The system provides specific knowledge of the labor market and data on skills for acquiring a job.

3) Motivation - This information can motivate students to begin additional efforts in career-related school activities.

4) Exposure to Occupations - The data suggests that many students learn about new occupations by participating in the EPIC testing.

5) Improvement in School Effectiveness - The student benefits when teachers, counselors and administrators make use of the data provided by this system to improve their own effectiveness.

NOTE: These benefits accrue to college-bound as well as non-college-bound students.

Staff Benefits of the Evaluation System

1) Instructional Feedback Data - The system provides data concerning the overall success of the classroom teachers' career education efforts, as well as that of the career education counselor and the occupational specialist.

2) Individual Student Data - The system provided twenty-five dimensions of student career and economic performance.

3) Motivation - This information can be used to help teachers motivate students toward their school-related career relevant tasks.

4) Ideas - Exposure to the broad spectra of occupation and work skills in thirteen occupational fields can provide teachers with new ideas.

5) Curriculum Planning - The data can be used to revise subject matter areas that are relevant to career education.

6) Community Data - This information can be used to help teachers become more aware of community attitudes and priorities.

7) School Career Planning Status - The data provides a basis for the recommendation of changes that would aid the counseling staff.

8) Individual Student Data - The system provides information on the individual students' career planning process and knowledge.

9) Student Motivation - This data can be useful in motivating students.

10) Supplements to Existing Data - This data can be usefully combined with existing ability, achievement, vocational aptitude and vocational interest tests to provide a complete profile of the student.

Administrative Benefits of the Evaluation System

1) Assessment - The system provides data on the status of the career education program.

2) Evaluation - This data can be used as the basis for an evaluation of the career-economic-community education programs.

3) Accountability - The Community Needs Survey form provides the basis for increasing the schools' accountability to the community.

4) Curriculum Planning - The information can be used to revise areas within the school curriculum to enhance its ability to respond to changes in labor-market conditions.

5) Cost-Effectiveness - This data can be combined with school budgetary information to produce cost-effectiveness information.

6) Community Communications - This data is relevant to important community concerns and can be used to communicate the relationship of the schools and the educational process to those concerned.

The foregoing benefits of the evaluation system will take on greater meaning as the system is implemented by each user group.

COST FACTORS

The developmental costs of the EPIC evaluation system are related to EPIC contracts 750-010 ($90,000) and 760-013 ($57,750). Due to efficient management throughout the project, EPIC, Inc. was able to return more than $10,000 to the Florida Department of Education.

Approximate costs by line item for the two-year EPIC project are as listed below. Actual costs may differ from the costs listed by a negligible amount, but costs listed are sufficient for the purposes of cost analysis.

EPIC Line Item	Expenditures Over Two Contract Years
Staff Honorarium	$ 78,850.00
Outside Consultants	11,200.00
Local Managers	75.00
Secretarial & Asst's	24,100.00
Travel	5,800.00
Per Diem	2,900.00
Supplies	2,100.00
Telephone	4,200.00
Equipment	2,000.00
Reproduction	3,300.00
Publishing	1,400.00
Miscellaneous (Conferences, Materials)	3,825.00
	$139,750.00
Minimum Return to State	10,005.33
Total EPIC Contract plus Interest	$149,755.33

EPIC, Inc. has produced an additional $15,000.00 savings for the Florida Department of Education by underwriting the evaluation of the Broward-Orange-Pinellas High School Consortium project (BOP project). (Please see the attached letter to Willard D. Dover.)

On the directive of Bill Dover early in the 1975 contract year to "assist and support projects directly related to EPIC", the EPIC project manager performed as follows:

1. Wrote the evaluation section of the original BOP project proposal, which qualified the BOP Consortium for funding consideration. (Evaluation was weighted 20% by the USOE funding source.) Budget for the project was approximately $120,000.
2. Developed an evaluation system for the BOP evaluation requirements, and performed evaluations required by the project.
3. Contributed to the Follow-On funding proposal.
4. Contributed to the Community Based Career Education proposal.

As a result of this evaluation effort by the EPIC project manager, the Orange and Broward districts, in return, provided EPIC with reproduction and printing services at a substantial savings to the EPIC project (approximately $4,000.00). This enabled EPIC to return over $10,000.00 to the state at the conclusion of the contract.

The total savings to Florida Educational Agencies over the two-year period of the EPIC contracts was approximately $25,000.00.

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broward
orange
pinellas

career education consortium

February 27, 1976

Mr. Willard D. Dover
President of EPIC
1415 East Sunrise Blvd.
Ft. Lauderdale, Fla. 33304

A consortium composed of three Florida school districts, Broward, Orange and Pinellas, received Federal funding during 1975-76 to demonstrate the most effective career education techniques and methods at the senior high school level.

The evaluation plan included in the proposal directed at this effort is relatively sophisticated, with data being collected for four elements: student product objectives, student process objectives, demonstration product objectives, and demonstration process objectives.

The task of developing and implementing this evaluation design has been underwritten by the Florida EPIC Project, with coordination assistance being provided by the consortium task force.

Without the support of EPIC, the consortium would have had to contract with an outside agency at a minimal cost of $15,000. In such a case, it is extremely doubtful the evaluation plan would have been of the same sophistication and magnitude as the one provided through EPIC.

[illegible] School Board of Orange County • [illegible] Woods Avenue • Orlando, FL 328[illegible] • [illegible]

In addition since funding is limited, the consortium would have had to seek evaluation funds through the vocational division of the Florida State Department of Education.

EPIC's involvement is indeed appreciated by all concerned.

Sincerely

Anne McMichael, Curriculum Specialist
Broward County Career Education Projec

Bill Ripley

Bill Ripley, Program Coordinator
Orange County Career Development
Program

Bill Rennie, Supervisor
Secondary Career Education
Pinellas County Career Education Proj

cc: Tom Justiz
R. S. Megow
Dave Fitzpatrick
Myrtle Hunt

BR:hw

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EPIC

AN AFFILIATE OF THE FLORIDA COUNCIL OF 100

EVALUATING CAREER, ECONOMIC, AND COMMUNITY EDUCATION PROGRAMS

A system developed by executives of Florida business, labor
and professional groups, with educators and the general public,
in coordination with The Florida Council of 100.

Appendices
to
Final Report of Contracts 750-010 and 760-013
July 16, 1974 to June 30, 1976

Florida Department of Education
Vocational Division
Tallahassee, Florida 32304

CE 017 406

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Instruments Which Measure Student Performance

OLD FORM

EDUCATIONAL PROGRESS IN CAREERS

#1a - Knowledge of the Economic System

Grades 2 and 3

You will have 15 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: Circle T if you believe a statement is True. (Yes)
Circle F if you believe a statement is False. (No)

Read each line with your teacher.

T F 1) You can buy things at a store and pay for them later. (2)

T F 2) Milk is made in the supermarket. (2)

T F 3) Most people make everything they need. (3)

T F 4) Most people can have everything that they want. (2)

T F 5) When you save money, you can spend it some other time. (2)

T F 6) The government collects our money with taxes. (3)

T F 7) If you don't have any money, you can trade for things. (3)

T F 8) In communistic countries, most people own their homes. (3)

T F 9) One way to spend money you have in a bank is to write a check. (2)

T F 10) Taxes pay for the government's services. (3)

NEW FORM

EDUCATIONAL PROGRESS IN CAREERS

#1a - Knowledge of the Economic System

Grades 2 through 4

You will have 5 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: Read each line with your teacher.

Circle Yes if you believe a statement is true.

Circle No if you believe a statement is false.

Yes No 1) The only way that your parents can buy things from a store is with money.

Yes No 2) Most people save their money to buy the things they want.

Yes No 3) Most people make almost everything they need.

Yes No 4) We pay taxes on the things we buy.

Yes No 5) Most people go to work to help their employers.

Yes No 6) One way to spend money you have put in a bank is to write a check.

Yes No 7) Most people have everything they want.

Yes No 8) Taxes pay for government services.

Yes No 9) If more people wanted oranges, the price would go down.

Yes No 10) Most people get the things they want by working.

EDUCATIONAL PROGRESS IN CAREERS

#1b - Knowledge of the Economic System Name ____________________

Grades 7 and 8 Grade ____________________

You will have 10 minutes to complete this form. School ____________________

Directions: Circle T if you believe a statement is True.

Circle F if you believe a statement is False.

T F 1) Gross profit is what remains when a business has paid its expenses out of its income.

T F 2) Stock means shares in a company.

T F 3) A manufacturer must pay wages and taxes.

T F 4) Bankrupt means that a business or person makes a profit.

T F 5) Mass production has resulted in higher costs of production.

T F 6) Competition in our economy helps to keep prices down.

T F 7) The number of goods available is called demand.

T F 8) Monopoly means there are different sellers of one item.

T F 9) Businesses may develop in a certain geographical area to be near a source of labor.

T F 10) People who do not produce goods or services cannot receive income.

T F 11) The reason people go to work is to help the economy.

T F 12) Auction means that all goods are sold for the same price.

T F 13) Budget means how a business or a person plans to spend money.

T F 14) Very rich people can buy anything that they want.

T F 15) A change in demand may be caused by changes in consumer taste or income.

T F 16) Interest is one cost charged to a customer who borrows money.

T F 17) If everyone accepted bottle caps in exchange for goods or services, then bottle caps would become the same as money.

T F 18) If everybody were given more money, things would cost more.

T F 19) Government spending for education is now the highest in the history of education.

T F 20) Tax is money collected by the government from its citizens.

T F 21) The Federal Government receives most of its money from corporate income taxes.

T F 22) Trading wheat for oil is an example of bartering.

T F 23) Tariff is a tax put on the goods we send to other countries.

T F 24) Export means a "black market."

T F 25) In communistic countries, the government owns the industries.

EDUCATIONAL PROGRESS IN CAREERS

#1c - Knowledge of the Economic System		Name	________________
Grades 10 through 12		Grade	________________
You will have 10 minutes to complete this form.		School	________________

Directions: Circle T if you believe a statement is True.

Circle F if you believe a statement is False.

The questions in this form relate to 8 categories of economic knowledge, as follows:

Profit

Productivity and the Market

Labor Market Demand

Consumer Economics

Business Cycles and Monetary Policy

The Roles of Government

International Trade and Monetary Policy

Comparative Economics

360

T F 1) The average company net profit before taxes is over 20% in most industries.

T F 2) Businesses cannot serve consumer interests and make reasonable profits at the same time.

T F 3) If a corporation reports that its profits are up 60%, this means that 60¢ out of every dollar of its sales are profit.

T F 4) When reading a corporation's financial statement, you would find "earned profits" on the page marked "balance sheet."

T F 5) In a private enterprise economy the most important aim of business is to make a profit.

T F 6) In a free enterprise economy, consumer spending suggests what should be produced.

T F 7) Common stocks and limited liability are characteristics of small business partnerships.

T F 8) It is more efficient for a lawyer to hire a secretary to type papers even though the lawyer is a better typist than the secretary.

T F 9) If several competing firms reduce their production of the same product, the price of the product usually falls.

T F 10) When the supply of a product remains constant as its demand increases, the price of the product usually goes down.

T F 11) Collective bargaining is a term used by unions to affect the terms and conditions of interest rates on capital.

T F 12) During the next 10 years, a college degree will become necessary for entering most jobs.

T F 13) Even in a recession, many unemployed people will turn down jobs that they don't like.

T F 14) The market for skilled workers has been declining recently.

T F 15) Employment opportunities in health-allied fields have been expanding during the past 5 years.

T F 16) The average income for a family living in the United States is now over $16,000 per year.

T F 17) To provide protection for bank depositors, the Federal Depost Insurance Corporation (FDIC) insures all member banks' deposits up to $40,000 per account.

T F 18) Term insurance is initially cheaper than other types of life insurance.

T F 19) The length of time over which a loan is repaid rarely affects the total cost of the loan.

T F 20) The percentage of a worker's income which is collected as a tax for social security is now the highest in the history of social security.

T F 21) During recessions, consumer spending usually increases sharply.

T F 22) While inflation can be viewed as a rise in the price level, it can also be seen as a rise in the value of money.

T F 23) The number of businesses going bankrupt usually increases during a recession.

T F 24) The economist's term, "recession," is used when the real Gross National Product falls during at least two successive quarters.

T F 25) During an inflationary period, working people are hurt more than people on fixed incomes.

T F 26) The U. S. Federal and State Governments account for over 20% of the goods and services purchased in the Gross National Product.

T F 27) Government seeks to maintain competition in some cases and to restrict it in others.

T F 28) The Gross National Product, unemployment, and other economic measures are, at best, rough approximations of the true figures.

T F 29) The three principal means by which governments finance their activities are taxation, borrowing, and increasing the money supply.

T F 30) Education is one of America's middle-sized businesses.

T F 31) The backing of U. S. dollars with a specified amount of silver has been discontinued.

T F 32) A reduction of U. S. tariffs would benefit U. S. consumers at the expense of workers and businesses in protected industries.

T F 33) Exchange rates between the U. S. dollar and other currencies changed little in the years between 1965 and 1975.

T F 34) The International Monetary Fund is the agency by which nations try to regulate world monetary policy.

T F 35) Most nations currently are on the gold standard.

T F 36) All of the following are goals of the United States economy: full production, stable growth, freedom of choice, equality of opportunity, and economic justice.

T F 37) Normally, the main difference between Fascism and Communism is that Fascism retains private ownership even though the government has actual control.

T F 38) In an ideal free market economy, government does not interfere in private economic transactions.

T F 39) Many communist countries have reintroduced free-market processes into their economics.

T F 40) Private enterprise is a system in which most natural resources are owned and controlled by the government.

EDUCATIONAL PROGRESS IN CAREERS

#1d - Knowledge of the Economic System		Name	______________
Grades 10 through 12		Grade	______________
You will have 10 minutes to complete this form.		School	______________

Directions: Circle T if you believe a statement is True.

Circle F if you believe a statement is False.

The questions in this form relate to 8 categories of economic knowledge, as follows:

Profit

Productivity and the Market

Labor Market Demand

Consumer Economics

Business Cycles and Monetary Policy

The Roles of Government

International Trade and Monetary Policy

Comparative Economics

T F 1) Business people usually take risks only when they believe profits can be made.

T F 2) Gross profit is what is left after employee wages are paid.

T F 3) Federal taxes on corporate income profits have averaged between 30% and 50% in recent years.

T F 4) Most Americans have a good understanding of how much profit is made by business.

T F 5) Profit can be thought of as a return on an investment or as a reward for the ability of the person who runs a business.

T F 6) The cost of producing a product is the only factor which determines the price of the product.

T F 7) A society based on a complex division of labor will usually have a higher gross national product than one based on self-sufficiency.

T F 8) As our economy becomes more specialized, we need less communications to help us in our work.

T F 9) Technological progress makes possible the more efficient production of goods.

T F 10) When management knowledge increases, a country can usually obtain more from its productive resources.

T F 11) Currently, the number of workers in U.S. manufacturing industries is greater than the number of workers employed by service-producing industries.

T F 12) Unskilled labor now accounts for a higher percentage of the U.S. labor force than ever before.

T F 13) White collar workers almost always make more money than blue collar workers.

T F 14) Minimum wage laws have some effect on the unemployment rate among young people.

T F 15) In most U. S. industries, automation creates more jobs on a production line than it takes away.

T F 16) Buying on credit usually increases the costs of goods and services that we buy each day.

T F 17) Most people who live on social security income are able to live comfortably with only that income.

T F 18) U.S. Savings Bonds generally pay higher interest than certificates of deposit.

T F 19) "Moonlighting" means to draw overtime pay.

T F 20) For some lower income people, social security taxes amount to as much or more than personal income taxes.

T F 21) When the money supply is increased, the result is usually lower prices on goods and services.

T F 22) One of the steps that the economy must go through before recovering from a recession is to sell-off excess inventories of goods.

T F 23) The Consumer Price Index (CPI) forecasts what prices will be like for consumers in two or three months.

T F 24) When more money is available through increased bank lending, interest rates are usually higher.

T F 25) One of the ways to predict a business cycle is with the Index of Leading Economic Indicators.

T F 26) Government control of prices is almost always necessary.

T F 27) Taxes divert spending power from individuals and businesses to governments.

T F 28) Businesses, unions, and other special interest groups maintain lobbies in Washington.

T F 29) The tariff is an example of taxation and governmental intervention.

T F 30) The U. S. Government owns over 50% of the land in some states.

T F 31) Trading U. S. wheat for Soviet oil is an example of bartering.

T F 32) Products made more efficiently in other countries is one advantage of international trade.

T F 33) Dollars held by people in foreign countries exceed U.S. gold reserves.

T F 34) The national debt was much higher immediately after World War II than it is now.

T F 35) Since 1950 the U. S. consistently has shown a surplus in its balance of payments.

T F 36) Communism is a system in which government owns most of the productive resources.

T F 37) All of the following are examples of American economic practices: the 40-hour week, tax-exempt status for church property, private inheritance of wealth, private property, free enterprise, competition, and the profit motive.

T F 38) The amount of natural resources in the U.S. is the primary reason for our high standard of living.

T F 39) Americans are called "affluent" because we have a large surplus of gold reserves.

T F 40) In most communistic countries, the unions are strong and influential.

EDUCATIONAL PROGRESS IN CAREERS

#2a - Worker Titles

Grades 2 through 12

You will have 10 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: List all of the different kinds of workers (or jobs) that you know.

Examples: Teacher, Police Office, Janitor.

Kinds of Workers

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________
11. ____________________
12. ____________________
13. ____________________
14. ____________________
15. ____________________
16. ____________________
17. ____________________
18. ____________________
19. ____________________
20. ____________________

Kinds of Workers

21. ____________________
22. ____________________
23. ____________________
24. ____________________
25. ____________________
26. ____________________
27. ____________________
28. ____________________
29. ____________________
30. ____________________
31. ____________________
32. ____________________
33. ____________________
34. ____________________
35. ____________________
36. ____________________
37. ____________________
38. ____________________
39. ____________________
40. ____________________

Kinds of Workers

41. ____________________
42. ____________________
43. ____________________
44. ____________________
45. ____________________
46. ____________________
47. ____________________
48. ____________________
49. ____________________
50. ____________________
51. ____________________
52. ____________________
53. ____________________
54. ____________________
55. ____________________
56. ____________________
57. ____________________
58. ____________________
59. ____________________
60. ____________________

EDUCATIONAL PROGRESS IN CAREERS

#2b - Workers in Different Industries

Grades 2 through 4

You will have 20 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: Write 2 different kinds of workers next to each question below.

Do not write the same worker twice on the page.

1) Who builds houses? a) ____________ b) ____________

2) Who works in a factory? a) ____________ b) ____________

3) Who works in a supermarket? a) ____________ b) ____________

4) Who works in an office? a) ____________ b) ____________

5) Who works in a bank? a) ____________ b) ____________

6) Who works on a newspaper? a) ____________ b) ____________

7) Who works as an entertainer? a) ____________ b) ____________

8) Who works in a hotel? a) ____________ b) ____________

9) Who works in government? a) ____________ b) ____________

10) Who keeps you in good health? a) ____________ b) ____________

11) Who works in a laboratory? a) ____________ b) ____________

12) Who works on a farm? a) ____________ b) ____________

13) Who gives us transportation? a) ____________ b) ____________

EDUCATIONAL PROGRESS IN CAREERS

#2c - Workers in Different Industries

Grades 7 and 8

You will have 10 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: Write 2 different kinds of workers next to each question below.

Do not write the same worker twice on the page.

1) Who builds houses? a) ____________ b) ____________

2) Who works in a factory? a) ____________ b) ____________

3) Who works in a supermarket? a) ____________ b) ____________

4) Who works in an office? a) ____________ b) ____________

5) Who works in a bank? a) ____________ b) ____________

6) Who works on a newspaper? a) ____________ b) ____________

7) Who works as an entertainer? a) ____________ b) ____________

8) Who works in a hotel? a) ____________ b) ____________

9) Who works in government? a) ____________ b) ____________

10) Who keeps you in good health? a) ____________ b) ____________

11) Who works in a laboratory? a) ____________ b) ____________

12) Who works on a farm? a) ____________ b) ____________

13) Who gives us transportation? a) ____________ b) ____________

EDUCATIONAL PROGRESS IN CAREERS

#2d - Preparation for Employment

Grades 7 and 8

You will have 10 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: Read the list of 36 workers listed below, then put a check next to only 10 out of the 36 workers who need the most preparation for employment.

1) ___ Advertising Layout Specialist
2) ___ Air Conditioning Contractor
3) ___ Architect
4) ___ Assembly Line Worker
5) ___ Auto Rental Agent
6) ___ Barber
7) ___ Bookkeeper
8) ___ Carpenter
9) ___ Cashier
10) ___ Certified Public Accountant
11) ___ Cosmetologist
12) ___ Dentist
13) ___ Industrial Relations Engineer
14) ___ Inventory Clerk
15) ___ Keypunch Operator
16) ___ Longshore Worker
17) ___ Mechanic
18) ___ Mechanical Engineer
19) ___ Optometrist
20) ___ Pharmacist
21) ___ Physician
22) ___ Plumber
23) ___ Postal Worker
24) ___ Quality Control Technician
25) ___ Sales Clerk
26) ___ Sheet Metal Contractor
27) ___ Shipping/Receiving Clerk
28) ___ Stage Lighting Technician
29) ___ Teacher
30) ___ Tool and Die Maker
31) ___ Truck Driver
32) ___ Veterinarian
33) ___ Water Meter Reader
34) ___ Waiter or Waitress
35) ___ Welder
36) ___ X-Ray Technician

Directions: Read the list of 36 workers listed below, then put a check next to only 10 out of the 36 workers who need the least preparation for employment.

1) ___ Advertising Layout Specialist
2) ___ Air Conditioning Contractor
3) ___ Architect
4) ___ Assembly Line Worker
5) ___ Auto Rental Agent
6) ___ Barber
7) ___ Bookkeeper
8) ___ Carpenter
9) ___ Cashier
10) ___ Certified Public Accountant
11) ___ Cosmetologist
12) ___ Dentist
13) ___ Industrial Relations Engineer
14) ___ Inventory Clerk
15) ___ Keypunch Operator
16) ___ Longshore Worker
17) ___ Mechanic
18) ___ Mechanical Engineer
19) ___ Optometrist
20) ___ Pharmacist
21) ___ Physician
22) ___ Plumber
23) ___ Postal Worker
24) ___ Quality Control Technician
25) ___ Sales Clerk
26) ___ Sheet Metal Contractor
27) ___ Shipping/Receiving Clerk
28) ___ Stage Lighting Technician
29) ___ Teacher
30) ___ Tool and Die Maker
31) ___ Truck Driver
32) ___ Veterinarian
33) ___ Water Meter Reader
34) ___ Waiter or Waitress
35) ___ Welder
36) ___ X-Ray Technician

EDUCATIONAL PROGRESS IN CAREERS

#2e - Job Requirements and Functions

Grades 10 through 12

Please do not write on this form. Circle all of your answers on the ANSWER SHEET.

You will have 30 minutes to complete the answer sheet.

Directions: Circle T if a statement is True. Circle F if a statement is False.

(If any part of a statement is false, mark the statement False.)

This form has 13 categories of occupations representing the entire "World of Work," as follows:

Construction

Manufacturing

Retailing/Wholesaling

Business/Office Management/Accounting

Banking/Insurance/Real Estate/Securities

Mass Communications

Entertainment/Arts

Personal/Hotel/Restaurant Services

Government/Utilities/Public Services

Health

Science and Technology

Farming/Ranching/Natural Resources

Transportation

An Architect:

T F 1) Requires a 4 or 5 year degree plus 3 years of practical experience to obtain a State of Florida license.

T F 2) Is the same as a Surveyor.

A Carpenter:

T F 3) Serves a 4-year apprenticeship for the majority of jobs in Florida.

T F 4) Assembles forms to hold concrete and may be subject to seasonal fluctuations in employment.

An Electrician:

T F 5) Does not require a State of Florida license, but may require a local license.

T F 6) Is the same as an Electronics Technician.

An Industrial Maintenance Mechanic:

T F 7) Is a union member for the majority of jobs in Florida.

T F 8) Makes metal parts for typewriters, motors, and even farm machinery.

A Machinist:

T F 9) Is a union member for the majority of jobs in Florida.

T F 10) Sometimes works with tolerances of ten millionths of an inch.

A Plumber:

T F 11) Must have a Master Plumber's license to go into the contracting business.

T F 12) Uses a threading die.

A Quality Control Technician:

T F 13) Is a union member for the majority of jobs in Florida.

T F 14) Sometimes works with Time and Motion Specialists while developing inspection procedures.

A Tool and Die Maker:

T F 15) Requires a State of Florida license.

T F 16) Specializes in producing jigs and dies.

A Buyer:

T F 17) Often works "up" from a Fashion Model or Fashion Coordinator.

T F 18) Is concerned with turnover of goods.

A Display Specialist:

T F 19) Requires a 4-year degree.

T F 20) Is sometimes called a Window Dresser, and may be employed by television stations for advertising and studio setup design.

A Shipping/Receiving/Inventory Control Clerk:

T F 21) Requires a Bachelor's degree.

T F 22) Uses a coding system and tags to prepare some items for inventory.

A Wholesaler:

T F 23) Requires a willingness to finance the receipt of goods from manufacturers.

T F 24) Uses market research to determine types of inventory and may be called a Jobber.

A Bookkeeper:

T F 25) Requires a State of Florida license.

T F 26) Works with records of company assets.

A Computer Programmer:

T F 27) Requires the same training as a Systems Analyst.

T F 28) Operates the computer when "de-bugging" computer programs.

A Payables or Payroll Clerk:

T F 29) Requires a 2-year degree in accounting.

T F 30) May be required to compute social security tax.

A Switchboard Operator:

T F 31) Receives on-the-job training in the general repair of the switchboard.

T F 32) Is also called the PBX Operator and in many companies is also the Receptionist.

A Bank President:

T F 33) Usually finds that an advanced degree is desirable.

T F 34) Usually leaves decisions on bank policy on interest rates to the Board of Directors.

A Loan Officer:

T F 35) Must be bonded in most Florida banks.

T F 36) Can give the better customers better interest rates.

A Stock Broker:

T F 37) Requires an advanced degree in Finance or Economics.

T F 38) Sells commodities and Treasury notes.

A Teller:

T F 39) Must be bonded and can be promoted to Credit Analyst.

T F 40) Usually operates proofing and sorting machines after the bank closes.

A Printer:

T F 41) Usually belongs to a union in Florida.

T F 42) Makes corrections by sharpening or reshaping images on negatives.

A Publisher of a Newspaper:

T F 43) Usually requires a 4-year degree.

T F 44) Usually requires advertising to make a profit.

A Recording Engineer:

T F 45) Usually requires an advanced degree to work on national networks.

T F 46) Produces 30-second "spots" for radio or television.

A Reporter:

T F 47) Usually requires an advanced degree.

T F 48) Usually writes the editorials.

A Dancer in a Night Club Act:

T F 49) Requires a certificate from a dancing school.

T F 50) Usually works with a Choreographer.

A Horse Trainer:

T F 51) Does not require a State of Florida license to operate at any Florida licensed race tracks.

T F 52) Hires Grooms and is sometimes the Horse Owner.

A Stage Manager:

T F 53) Must serve an apprenticeship and is usually a union member in Florida.

T F 54) Is sometimes in charge of production expenditures.

A Stage Lighting Technician:

T F 55) Is not a union member on the majority of jobs in Florida.

T F 56) Is sometimes called a Grip.

A Cook/Chef/or Caterer:

T F 57) Does not require a certificate from the Health Inspector.

T F 58) Sometimes hires a Cake Decorator.

A Cosmetologist:

T F 59) Must complete over 1000 hours of schooling and pass a test to receive a Florida license.

T F 60) Sometimes works for the airlines.

A Tailor/Sewer:

T F 61) Requires a 2-year degree and on-the-job training.

T F 62) Usually makes the materials used.

A Waiter/Waitress:

T F 63) Is a union member for the majority of jobs in Florida.

T F 64) Sometimes helps the Busboy clean off tables.

A Police Officer:

T F 65) Is usually trained by the police academy and must pass a State of Florida test.

T F 66) Could work as a Juvenile Delinquency Counselor in a small town.

A Politician:

T F 67) Requires a 4-year degree.

T F 68) Could be a County Commissioner or a State Legislator, and understands the workings of government.

A Teacher:

T F 69) Requires a State of Florida license.

T F 70) Performs all of the jobs of the Occupational Specialist.

A Water Treatment Operator:

T F 71) Must serve a 2-year apprenticeship and is a member of a union for the majority of jobs in Florida.

T F 72) Works with chemical and mechanical equipment such as filters.

A Dietician:

T F 73) Requires a 4-year degree and a State of Florida license.

T F 74) Works only in hospitals.

An Optometrist:

T F 75) Must have 4 to 6 years of school before taking a State of Florida test.

T F 76) Is the same as an Optician.

A Physician:

T F 77) Requires 4 years of college, 4 years of medical school and one year of internship before passing a State of Florida test.

T F 78) Could be a Psychiatrist.

A Veterinarian:

T F 79) Must have a degree in veterinary medicine and receive a State of Florida license.

T F 80) Is a member of the allied health team as is a Doctor, but is limited to practice on animals.

A Civil/Structural Engineer:

T F 81) Usually requires an advanced degree.

T F 82) Could work as a Sales Engineer for a steel or concrete products company.

An Industrial Engineer:

T F 83) Does not require an advanced degree for a State of Florida license.

T F 84) Is sometimes called the Process Control Operator.

A Meteorologist:

T F 85) Usually requires an advanced degree in Florida.

T F 86) Works regularly with shooting stars and meteorites.

A Research Analyst:

T F 87) Does not require a 4-year degree.

T F 88) Designs instruments for collecting data and could be an Evaluator.

A Crop Duster:

T F 89) Requires a Pilot's license in Florida.

T F 90) Kills grasshoppers as well as mustard grass.

A Harvest Hand:

T F 91) Usually belongs to a Florida union.

T F 92) Requires the capability to finance the receipt of goods.

A Miner:

T F 93) Is usually a union member in Florida when working with phosphate and titanium.

T F 94) Could extract limestone from Florida earth.

A Water-Well Driller:

T F 95) Is usually a member of a Florida union.

T F 96) Drills for water for domestic, agricultural or industrial consumption.

An Airline Pilot:

T F 97) Must have a Federal license and usually belongs to a national union.

T F 98) Is responsible for passenger safety during the trip.

An Auto Mechanic:

T F 99) Belongs to a union for the majority of jobs in Florida.

T F 100) Tests untried products.

A Driver of a Truck:

T F 101) Requires a chauffeur's license.

T F 102) Sometimes uses a Citizen's Band (C.B.) radio to alert other drivers.

A Travel Agent:

T F 103) Is a union member for the majority of jobs in Florida.

T F 104) Is the same as a local Tourist Guide.

EDUCATIONAL PROGRESS IN CAREERS

#2e/2f - Job Requirements and Functions - ANSWER SHEET

Name ____________________

Grade ____________________

School ____________________

1. T F
2. T F
3. T F
4. T F
5. T F
6. T F
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13. T F
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94. T F
95. T F
96. T F
97. T F
98. T F
99. T F
100. T F
101. T F
102. T F
104. T F

EDUCATIONAL PROGRESS IN CAREERS

#2f - Job Requirements and Functions

Grades 10 through 12

Please do not write on this form. Circle all of your answers on the ANSWER SHEET.

You will have 30 minutes to complete the answer sheet.

Directions: Circle T if a statement is True. Circle F if a statement is False.

(If any part of a statement is false, mark the statement False.)

This form has 13 categories of occupations representing the entire "World of Work," as follows:

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Mass Communications

Entertainment/Arts

Personal/Hotel/Restaurant Services

Government/Utilities/Public Services

Health

Science and Technology

Farming/Ranching/Natural Resources

Transportation

An Air Conditioning Mechanic:

T F 1) Must have a State of Florida registration or license.

T F 2) Must be able to read and follow blue-prints.

A Bricklayer:

T F 3) Receives basically the same training as a Plasterer, and requires a Florida license.

T F 4) Can perform many of the functions of the Stone Mason, but rarely does the work of a Cement Mason.

An Equipment Operator:

T F 5) Belongs to a union for the majority of jobs in Florida.

T F 6) Is the same as an Operating Engineer, and rarely carries a slide rule.

A Painter:

T F 7) Starts out as a Drywaller before advancing to Assistant Painter who requires a Florida license.

T F 8) Does not need to know about color shading anymore, because factory packed, pre-shaded paints are used.

An Electronics Technician:

T F 9) Is a union member on the majority of jobs in Florida.

T F 10) Uses specifications for transistors and diodes.

An Expediter:

T F 11) Requires a 4-year degree and management training.

T F 12) Usually works with the Production Manager.

A Garment Cutter:

T F 13) Is a union member on the majority of jobs in Florida.

T F 14) Can use a computer to produce bathing suits.

A Welder:

T F 15) Requires a State of Florida license.

T F 16) Produces metal tubes and can gradually reduce the width of a wire.

An Appliance Repair Specialist:

T F 17) Requires a 2-year degree in most industries.

T F 18) Can fix a radio, television or washer/dryer only if specializing in these products.

A Cashier or Sales Clerk:

T F 19) Needs more education than a high school diploma.

T F 20) Records information for inventory control purposes.

A Salesperson on Commission:

T F 21) Belongs to a union for the majority of jobs in Florida.

T F 22) Needs to know the competitor's products as well as the company's products.

A Supermarket Stockworker:

T F 23) Requires a Florida license.

T F 24) Often works his/her way up to Butcher or Produce Specialist.

A Certified Public Accountant:

T F 25) Requires a 4-year degree and a State of Florida license and could be the company Auditor.

T F 26) Makes the initial journal entries of all business transactions.

A Keypunch Operator:

T F 27) Is usually trained to run a sorter, collator, and verifier.

T F 28) Must be able to edit coded work.

A Receivables/or Credit Clerk:

T F 29) Requires some knowledge of bookkeeping.

T F 30) Pays bills in time to receive discounts.

A Secretary:

T F 31) Requires a knowledge of dictating equipment.

T F 32) Is usually expected to be able to run a keypunch.

An Insurance Agent:

T F 33) Requires a Florida license.

T F 34) Does not write policies, but checks applications to make sure that the company is not taking on a bad risk.

A Market Research Analyst:

T F 35) Rarely requires an advanced degree.

T F 36) Keeps track of public opinion or market demand information.

A Real Estate Salesperson:

T F 37) Needs one year in Real Estate Sales in addition to the required schooling to qualify for a Florida Broker's license.

T F 38) Works with contracts, deeds, leases, mortgages and multiple listings.

Un Underwriter of Insurance:

T F 39) Usually requires a 4-year degree.

T F 40) Decides what types of policies to offer.

An Advertising Layout Specialist:

T F 41) Usually requires a 4-year degree.

T F 42) Is the same as an Account Executive who packages a product or service for public acceptance.

A Camera Operator or Projectionist:

T F 43) Is a union member for the majority of jobs in Florida.

T F 44) Is the same as a Reel Room Operator.

A Copywriter:

T F 45) Requires a 4-year degree for most Florida newspapers.

T F 46) Is hired by advertising agencies, retail stores and manufacturing companies.

An Editor:

T F 47) Could mean Managing Editor, City Editor, Sports Editor, Women's Editor, Food Editor or the Editor of the Newspaper; an advanced degree is not required for most of these editors.

T F 48) Usually has the responsibility to caution reporters from reporting personal opinions in news stories.

An Amusement Park Operator:

T F 49) Is not a union member for the majority of jobs in Florida.

T F 50) Usually hires Hotwalkers.

A Director of a Motion Picture:

T F 51) Must have a 4-year degree.

T F 52) Is sometimes the same as the Producer.

A Musician:

T F 53) Is a member of a union for the majority of jobs in Florida.

T F 54) Could be a Conductor, Orchestra Leader, or Rock and Roll Star.

A Theatre Manager:

T F 55) Requires the willingness to finance the receipt of goods.

T F 56) Has the skills to operate an amusement park.

A Desk Clerk:

T F 57) Is a member of a union for the majority of jobs in Florida.

T F 58) Usually hires the Bellhop.

A Restaurant Operator:

T F 59) Requires a Florida license.

T F 60) Sometimes buys provisions together with purchasers for other restaurants.

A Maitre'D:

T F 61) Requires a Florida license.

T F 62) Runs a catering service.

A Mortician:

T F 63) Is trained in embalming people.

T F 64) Conducts funeral services.

A Counselor Working in a Public School:

T F 65) Does not require an advanced degree.

T F 66) Usually works as the Placement Coordinator.

A Firefighter:

T F 67) Must pass a civil service test when the local office requires it.

T F 68) Sometimes must work under the direct protection of the Police.

A Lawyer:

T F 69) Requires the equivalent of at least 7 years of higher education in Florida.

T F 70) Can work as a registered Lobbyist, Circuit Court Judge or Labor Arbitrator.

A Telephone Equipment Installer:

T F 71) Needs a Florida license.

T F 72) Will fix your telephone during the weekend if it is an emergency.

A Dentist:

T F 73) Must have a minimum of 3 years of college plus 4 years of dentistry to obtain a Florida license.

T F 74) Usually employs an Orthodontist.

A Hospital Para-Auxiliary:

T F 75) Must have 3 or 4 years of college and 4 years of medical school in Florida.

T F 76) Sometimes administers anesthesia in the operating room.

A Nurse:

T F 77) Must pass a Florida test with a number of points required by the state.

T F 78) Is either a Registered Nurse or a Licensed Practical Nurse in Florida.

A Pharmacist:

T F 79) Usually requires a 5-year degree in pharmacy and must pass a Florida test to be licensed.

T F 80) Prescribes drugs for illnesses.

A Civil/Environmental Engineer:

T F 81) Needs a 4-year degree or ten years of experience to obtain a State of Florida license.

T F 82) Could be an Irrigation Engineer.

A Mechanical Engineer:

T F 83) Can take the State of Florida Professional Engineer exam without an engineering degree, with ten years of qualified experience.

T F 84) Could work as a Product Engineer or Liaison Engineer.

An Oceanic Engineer:

T F 85) Must do an internship before receiving a degree in Florida.

T F 86) Would not be concerned with fish farming.

A Traffic Engineer:

T F 87) Requires a State of Florida license

T F 88) Schedules flights leaving and landing according to weather conditions at an airport.

A Dairy Route Carrier:

T F 89) Requires a chauffeur's license.

T F 90) Usually makes collections for goods delivered.

A Farm Equipment Mechanic:

T F 91) Must have a degree in agriculture and 2 years on-the-job training.

T F 92) Can fix a silo or thresher.

A Horticulturist:

T F 93) Requires a 4-year degree to run a nursery.

T F 94) Could be a Seed Analyst.

A Rancher:

T F 95) Requires a 2-year degree in animal husbandry.

T F 96) Maintains grazing land for the production and cross-breeding of livestock.

A Longshore Worker:

T F 97) Must complete a 3-month apprenticeship and belong to a Florida union.

T F 98) Sometimes runs heavy equipment.

A Service Station Attendant:

T F 99) Must have a high school education.

T F 100) Usually works as an Entrepreneur.

An Auto Rental Agent:

T F 101) Usually does not require a valid driver's license.

T F 102) Usually must work some evenings and weekends.

A Steward/Stewardess:

T F 103) Must know emergency medical procedures.

T F 104) Can be found working on auto trains.

EDUCATIONAL PROGRESS IN CAREERS

#3a - Career Planning

Grades 7 through 12

Please do not write on this form. Circle all of your answers on the ANSWER SHEET.

You will have 15 minutes to complete the answer sheet.

This is a 4-part form to assist you in planning for a career, as follows:

a) Knowledge About Career Planning
b) Career Planning Activities Checklist
c) Talking About Careers
d) Career Decision-Making

Part a - Knowledge About Career Planning

Directions: Circle Yes if you agree with each statement.
Circle No if you disagree with each statement.

Yes No 1) In today's society a person is better off waiting until after finishing college to decide what occupation to pursue.

Yes No 2) There are tests available which can help you to decide whether to work with people, things, ideas, or numbers.

Yes No 3) Your salary or wages are not the most important things to consider when choosing a job, but do have major significance.

Yes No 4) One occupation is as good as another for most people.

Yes No 5) There is not much that a person can do to get ready for a job except to see what is available when the time comes to choose.

Yes No 6) Most people remain in the same job throughout their lifetime.

Yes No 7) A job has little influence on a person's way of life.

Yes No 8) Workers lose their jobs because of bad personal relations more often than from a lack of skills.

Yes No 9) Having an interest in a job is most important in order to be successful on the job.

Yes No 10) Workers usually need to go back to school or to retrain on-the-job several times in a lifetime.

Part b - Career Planning Activities Checklist

Directions: Circle Yes if you have performed each activity below; circle No if you have not.

I Have:

Yes No 11) Watched people on television do work which interests me.

Yes No 12) Watched someone, at their place of work, do the kind of work in which I am interested.

Yes No 13) Reviewed occupational films, film strips, or movies about jobs which interest me.

Yes No 14) Visited a career or occupation center in a school which gave me some information on a job or career which interests me.

Yes No 15) Read trade journals or brochures about jobs which interest me.

Yes No 16) Looked through newspapers or magazines for jobs which interest me.

Yes No 17) Looked through the "Yellow Pages" of a telephone book for jobs which interest me.

Yes No 18) Written to companies or agencies for brochures describing jobs or careers which interest me.

Yes No 19) Enrolled in a course which helped me to consider one or more careers which interest me.

Yes No 20) Enrolled in a course which provided me with skills that are going to help me on a job.

Yes No 21) Participated in class discussions about a job or career which interests me.

Yes No 22) Conducted research into a particular career which interests me.

Yes No 23) Completed a study which compares workers' life styles in a number of different occupations which interest me.

Yes No 24) Evaluated the kinds of work activities which interest me through formal tests or in other ways.

Yes No 25) Considered my physical abilities, general health, and school grades in connection with several possible jobs or careers which interest me.

Yes No 26) Considered higher education for a career which requires it, or not going on to higher education if a career does not require it.

Yes No 27) Considered some general ways of making a living as an employee.

Yes No 28) Considered some general ways of making a living as an entrepreneur or as a self-employed person.

Yes No 29) Worked on my deficiencies in basic skills such as English, math, reading, and writing so that I will be able to get a good job and hold onto it.

Yes No 30) Worked on a job in preparation for a career in that field.

Part c - Talking About Careers

Directions: Circle Yes if you have talked with anyone listed below about work which interests you; circle No if you have not talked with these people.

Yes No 31) Parents.

Yes No 32) Relatives.

Yes No 33) Friends or neighbors my age.

Yes No 34) Adult friends or neighbors.

Yes No 35) Teachers.

Yes No 36) Counselors.

Yes No 37) Occupational specialists.

Yes No 38) Employers or an employment agent.

Yes No 39) Workers.

Yes No 40) Military personnel.

Directions: Circle Yes if you talked with that person at any of the places listed below; circle No if you did not.

Yes No 41) At home.

Yes No 42) At the home of a relative.

Yes No 43) At a club meeting.

Yes No 44) At a friend's or neighbor's house.

Yes No 45) During a class discussion.

Yes No 46) In a school office.

Yes No 47) During a field trip with classmates.

Yes No 48) During a "Career Day," conference or convention.

Yes No 49) When a worker or employer came and talked to my class.

Yes No 50) At the place of work, or where I filled out an application for a job.

Part d - Career Decision-Making

Directions: Circle Yes if you agree with each statement below; circle No if you disagree.

I am:

Yes No 51) Thinking about one or more possible careers or jobs.

Yes No 52) Ready to talk to someone about a career or a job.

Yes No 53) Ready to have someone help me find a job.

Yes No 54) Ready to begin work in a job or career which I have chosen.

Yes No 55) Already working in a job or career which I have chosen.

I plan to find a job:

Yes No 56) By myself.

Yes No 57) With the help of my parents.

Yes No 58) With the help of friends my age.

Yes No 59) With the help of adult neighbors or friends.

Yes No 60) With the help of a teacher.

Yes No 61) With the help of a counselor.

Yes No 62) With the help of an occupational specialist.

Yes No 63) With the help of an employment agency.

Yes No 64) With the help of a person interested in my career.

Yes No 65) With an advertisement in the newspaper.

I plan to:

Yes No 66) Get a job before completing high school.

Yes No 67) Complete high school.

Yes No 68) Get a job after completing high school.

Yes No 69) Travel or take a vacation before getting a job.

Yes No 70) Go into a training program, e.g. apprenticeship.

Yes No 71) Go on to a trade or technical school.

Yes No 72) Go on to a community college.

Yes No 73) Go on to a four-year college or university.

Yes No 74) Go on to an advanced degree.

I plan to:

Yes No 75) Continue my education on a part-time basis in order to move up in my career.

Yes No 76) Get a part-time job while enrolled in further education.

Yes No 77) Get a full-time job while enrolled in further education.

Yes No 78) Develop my hobby into a career.

Yes No 79) Take over my family's business.

Yes No 80) Be a homemaker.

Yes No 81) Join the armed services.

Yes No 82) Enter the armed services only as a training school leading to college or a career.

I plan to have the following position in ten years:

Yes No 83) Unskilled or semiskilled employee.

Yes No 84) Skilled employee.

Yes No 85) Manager or supervisor.

Yes No 86) Professional or consultant.

Yes No 87) President or owner of a business.

Yes No 88) Chairman or director of the board of a corporation.

#3a - Career Planning - ANSWER SHEET

EDUCATIONAL PROGRESS IN CAREERS

Name ______________________ Grade ____________ School ______________________

Part a

1. Yes No
2. Yes No
3. Yes No
4. Yes No
5. Yes No
6. Yes No
7. Yes No
8. Yes No
9. Yes No
10. Yes No

Part b

11. Yes No
12. Yes No
13. Yes No
14. Yes No
15. Yes No
16. Yes No
17. Yes No
18. Yes No
19. Yes No
20. Yes No
21. Yes No
22. Yes No
23. Yes No
24. Yes No
25. Yes No
26. Yes No
27. Yes No
28. Yes No
29. Yes No
30. Yes No

Part c

31. Yes No
32. Yes No
33. Yes No
34. Yes No
35. Yes No
36. Yes No
37. Yes No
38. Yes No
39. Yes No
40. Yes No
41. Yes No
42. Yes No
43. Yes No
44. Yes No
45. Yes No
46. Yes No
47. Yes No
48. Yes No
49. Yes No
50. Yes No

Part d

51. Yes No Possibly
52. Yes No Possibly
53. Yes No Possibly
54. Yes No Possibly
55. Yes No Possibly
56. Yes No Possibly
57. Yes No Possibly
58. Yes No Possibly
59. Yes No Possibly
60. Yes No Possibly
61. Yes No Possibly
62. Yes No Possibly
63. Yes No Possibly
64. Yes No Possibly
65. Yes No Possibly
66. Yes No Possibly
67. Yes No Possibly
68. Yes No Possibly
69. Yes No Possibly
70. Yes No Possibly
71. Yes No Possibly
72. Yes No Possibly
73. Yes No Possibly
74. Yes No Possibly
75. Yes No Possibly
76. Yes No Possibly
77. Yes No Possibly
78. Yes No Possibly
79. Yes No Possibly
80. Yes No Possibly
81. Yes No Possibly
82. Yes No Possibly
83. Yes No Possibly
84. Yes No Possibly
85. Yes No Possibly
86. Yes No Possibly
87. Yes No Possibly
88. Yes No Possibly

EDUCATIONAL PROGRESS IN CAREERS

#3b - Considering Careers

Grades 7 through 12

You will have 15 minutes to complete this form.

Name ____________________

Grade ____________________

School ____________________

Directions: For each career listed below, check only one of the columns below which read:

"I am not interested", or "I am possibly interested", or "I am interested."

Then check: "I would like to know more about this career" - only if you would like to know more about it.

You should have no more than 2 checks per line for each career.

	I am not interested	I am possibly interested	I am interested	I would like to know more about this caree
Air Conditioning Mechanic				
Architect				
Bricklayer				
Carpenter/Cabinet Maker				
Electrician				
Equipment Operator				
Painter				
Plumber				
Roofer				
Sheet Metal Worker				
Drafter				
Electronics Technician				
Expediter				
Garment Cutter				
Industrial Maint. Mechanic				
Machinist				
Quality Control Tech.				
Tool and Die Maker				
Upholsterer/Furn. Finisher				
Welder				

	I am not interested	I am possibly interested	I am interested	I would like to know more about this career
Appliance Repair Specialist				
Buyer/Fash. Coord./Model				
Cashier/Sales Clerk				
Display Specialist				
Sales Person, Commission				
Security Person				
Ship/Receive/Inv. Clerk				
Supermarket Stock Worker				
Vending Mach. Route Person				
Wholesaler/Warehouse Oper.				
Bookkeeper/Bus. Mach. Oper.				
Certified Public Accountant				
Clerk Typist				
Computer Programmer/Analyst				
Keypunch Operator				
Office Machine Serv. Person				
Payables/Payroll Clerk				
Receivables/Credit Clerk				
Secretary/Stenographer				
Switchboard Operator				
Bank President/V. Pres.				
Insurance Adjuster				
Insurance Agent/Sales				
Loan Officer				
Market Research Analyst				
Mortgage Solicitor				
Real Estate Sales/Broker				
Stock Broker				
Teller				
Underwriter				

	I am not interested	I am possibly interested	I am interested	I would like to know more about this career
Ad. Layout/Makeup Spec'st				
Camera Oper./Project'ist				
Copywriter				
Editor				
Offset Press Operator				
Photographer				
Printer				
Publisher				
Recording Engineer				
Reporter				
Amusement Park Oper.				
Artist/Sculptor				
Dancer/Singer				
Director/Producer				
Horse Trainer				
Musician/Composer				
Stage Lighting Tech.				
Stage Manager				
Theatre Manager				
Usher/Ticket Taker				
Cook/Chef/Caterer				
Cosmetologist				
Custodian/Janitor				
Desk Clerk				
Exterminator/Lawn Sprayer				
Hotel/Rest./Franchise Oper.				
Maid/Housekeeper				
Maitre'D/Waiter/Waitress				
Mortician/Undertaker				
Tailor/Sewer/Mender				

	I am not interested	I am possibly interested	I am interested	I would like to know more about this career
Counselor/Social Worker				
Firefighter				
Government Employee				
Lawyer				
Military Person				
Police Officer				
Politician				
Teacher/Child Care Worker				
Telephone Equip. Installer				
Water Treatment Operator				
Dental Para-Auxiliary				
Dentist				
Dietician				
Hospital Para-Auxiliary				
Nurse, LPN/RN				
Optometrist				
Pharmacist				
Physician				
Veterinarian				
X-Ray Technician				
Engineer, Civil/Environ.				
Eng., Civil/Structural				
Engineer, Electrical				
Engineer, Electronic				
Engineer, Industrial				
Engineer, Mechanical				
Engineer, Oceanic				
Engineer, Traffic				
Meteorologist				
Research Analyst				

	I am not interested	I am possibly interested	I am interested	I would like to know more about this career
Crop Duster				
Dairy Route Carrier				
Diver				
Farm Equipment Mechanic				
Farmer				
Harvest Hand, Citrus				
Horticulturist/Nursery Worker				
Miner				
Rancher/Animal Breeder				
Water-Well Driller				
Airline Pilot				
Auto Body Repairer				
Auto Mechanic				
Auto Rental Agent				
Driver, Truck				
Longshore Worker				
Service Station Attendant				
Stewardess/Steward				
Ticket/Reservation Agent				
Travel Agent				

I plan to earn my living as a(an): ____________________
(your career choice)

Write the courses that you are taking or which you have taken to prepare yourself for your career choice (above):

____

Check the highest level of education that you feel is required for your career:

High school ________

Technical school ________

2 years of college ________

4 years of college ________

More than 4 years of college ________

EDUCATIONAL PROGRESS IN CAREERS

#4a - Acquiring and Maintaining a Job

Name ______________________

Grades 10 through 12

Grade ______________________

You will have 15 minutes to complete this form.

School ______________________

This is a 4-part form to assist you in acquiring and maintaining a job, as follows:

a) Job Expectations
b) Employee Work Habits
c) Employee Traits and Mannerisms
d) Interviewing for a Job

Part a - Job Expectations

Directions: From the list of 20 job expectations and benefits below, please circle the numbers of only the 10 items (out of the 20) that you will want most in a career or a job.

I want a job that will:

1) Pay me enough money and fringe benefits to provide for myself and my family.

2) Interest me.

3) Offer me chances for advancement and promotion.

4) Allow me to be paid based on my performance.

5) Have a supervisor who is a fair person.

6) Give me the feeling of accomplishment.

7) Provide good working conditions and pleasant surroundings.

8) Provide security, even during hard times.

9) Allow me to help other people.

10) Allow me great freedom when taking my vacation.

11) Allow me to succeed in the economic world.

12) Allow me to work with knowledge.

13) Challenge me.

14) Allow me to work at my own pace.

15) Allow me to be creative.

16) Make me happy.

17) Give me prestige and status.

18) Allow me to schedule my own hours.

19) Allow me to work as part of a team.

20) Give me great responsibility.

Write all of the other things that you will look for when considering a career:

____

Part b - Employee Work Habits

Directions: From the list of 20 employee work habits below, please circle the numbers of only 10 (out of the 20) that you believe employers would appreciate most.

1. Doing work that others find tedious.
2. Working at more than one job at a time.
3. Willingness to work with maximum effort.
4. Asking questions to clarify instructions.
5. Doing detail work.
6. Doing different kinds of work.
7. Planning something so that it usually goes well.
8. Not objecting to long working hours.
9. Being orderly and neat.
10. Completing tasks with a minimum of supervision.
11. Using common sense in solving problems on the job.
12. Being confident.
13. Being punctual.
14. Getting the job done on time.
15. Taking pride in doing a job well.
16. Working hard to correct errors.
17. Being accurate.
18. Liking the work (and not watching the clock).
19. Taking on more and more responsibility.
20. Following through on instructions.

Write all of the other work habits that you believe employers would want you to have:

Part c - Employee Traits and Mannerisms

Directions: From the list of 20 employee traits and mannerisms below, please circle the numbers of only 10 (out of the 20) that you believe employers would appreciate most.

1. Helping people who are upset.
2. Being a good supervisor.
3. Being a good salesperson.
4. Being tactful.
5. Being patient with people who are slow.
6. Being comfortable with all kinds of people.
7. Making new friends easily.
8. Knowing how to disagree without offending people.
9. Being able to work for others.
10. Willingness to move within the company.
11. Being a good listener.
12. Not passing the responsibility to others.
13. Working well with a team.
14. Communicating well.
15. Being honest and truthful.
16. Taking criticism well.
17. Being ambitious.
18. Being loyal to my employer.
19. Being dependable.
20. Knowing how to handle personal problems.

Write all of the other personal traits and mannerisms that you believe employers would want you to have:

____

____

____

Part d - Interviewing for a Job

Directions: From the list of 20 statements relating to a job interview situation below, please circle the numbers of only 10 (out of the 20) that you believe employers would appreciate most.

1) Honesty and sincerity.
2) Having knowledge about the position.
3) Being interested in progressing within the company.
4) Having a clean and neat appearance.
5) Having personal references, addresses, and phone numbers ready.
6) Being an intelligent listener.
7) Speaking loud enough to be understood.
8) Looking at a person when speaking.
9) Leaving the impression that you are determined to get the job.
10) Showing enthusiasm and a willingness to learn.
11) Being prepared to discuss future plans.
12) Not talking to the point that the interviewer has to interrupt to "get a word in."
13) Making a resumé of all past work experience and education.
14) Gaining some experience at filling out job applications.
15) Dressing in good taste.
16) Getting into the habit of introducing yourself.
17) Making careful notes of times, dates, and places of follow-up meetings.
18) Being frank when asked questions.
19) Leaving personal problems at home.
20) Indicating a willingness to relocate if necessary.

Write all of the other things that you could do to prepare yourself for a job interview: ____

____

____

____

____

EDUCATIONAL PROGRESS IN CAREERS

#4b - Inventory of Work Skills

Grades 10 through 12

You will have 15 minutes to complete this form.

Name ______________________

Grade ______________________

School ______________________

Skills which are used in the world of work are listed on the following pages.

Directions: Read the list of work skills until you find something that you know how to do. Then put a check under all of the places at which you learned how to do this work. Put a check next to a work skill only if you can do the work.

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Drive heavy equipment, such as tractor, bulldozer, grader, etc.											
Correct defects by rubbing, chiseling, grinding, sanding.											
Erect a scaffold.											
Cover surfaces with paints, varnish, stain, enamel.											
Cut and lay tiles and terra cotta.											
Pour and smooth concrete.											
Erect forms for pouring concrete.											
Mix mortar and set stones or bricks using a trowel.											
Install fuses, conduits, and switches.											
Install plumbing and fixtures using a threading die.											
Erect frame walls from 2 x 4 boards, using a hammer and saw.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Set door and window frames; install cabinets.											
Select building materials for a job.											
Estimate the cost of materials for a job.											
Make drawings of a building to scale.											
Sketch simple and complex devices.											
Make drawings of a set of parts to scale.											
Write purchase orders for vendor parts.											
Transfer a pattern to materials.											
Fire pottery in a kiln.											
Machine metals to specifications.											
Weld metal joints or heat treat metal to specifications.											
Make a sand mold and produce a casting.											
Mold fiberglass with metal using epoxies.											
Solder electronic parts.											
Make or assemble parts from programmed directions, within specifications.											
Arrange the layout of work on an assembly line.											
Expedite parts and materials for continuous production.											
Inspect parts for size, finish and defects.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Test a product within specifications, using a voltmeter or a pressure guage.											
Arrange window displays.											
Make appliance repairs.											
Operate a cash register and give correct change.											
Give credits for items returned and make out credit forms.											
Set up a maximum dollar purchase credit checking system and screen credit applications.											
Take orders for products by telephone, and quote accurate delivery dates.											
Compare values on a cost-per-unit basis.											
Train workers to demonstrate new products and assist customers.											
Gather information about a competitor's product.											
Select and mark-down merchandise for sale.											
Keep updated files on incoming shipments and code incoming merchandise.											
Order new goods based on a computer report of items sold.											
Make periodic inventory counts and compute inventory values.											
Compute an invoice and bill of lading.											
Promote a profit-making event.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Write business letters.											
Take dictation in shorthand and transcribe into readable copy.											
Type rough drafts of letters and reports from a dictating machine.											
Keep a well-organized correspondence file.											
Run a switchboard; sort and distribute mail.											
Operate a 10-key calculating machine.											
Prepare a budget and estimate when to cut off spending to remain within budget.											
Record business transactions as debits and credits.											
File an Income Tax Form.											
Produce payroll checks, withholding and social security records.											
Keep an accurate accounts receivable file.											
Keypunch alphanumeric data into punched cards and edit coded work using a verifier.											
Program a computer, using a systems flowchart and operate a sorter, collator and reproducer.											
Express sales versus costs with charts or graphs.											
Produce a balance sheet and profit/loss statement.											
Cash payroll and personal checks.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Balance a checking or savings account.											
Compare the rate of return on different investments.											
Apply for and use credit cards.											
Evaluate the best insurance by competing companies.											
File an insurance claim.											
Explain the need for life insurance.											
Accept, count, and record withdrawals and deposits.											
Balance receipts and payouts.											
Use a multiple-listing book.											
Compare the profits of various industries.											
Examine the records of a business for accuracy.											
Buy and sell stocks.											
Apply for a loan.											
Compute interest and collect loan payments.											
Write or rewrite news articles with a typewriter, and proof copy.											
Write a review of a book, play, or movie.											
Develop advertising layouts which introduce new products.											
Write advertisements or slogans.											
Write the lead for a news story.											
Develop film and enlarge prints.											

I learned to do this:

	On a Job	In the following courses:							Other Places in school	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Select pictures and write captions for publication.											
Determine newspaper layout of pictures and copy.											
Produce a school newspaper, radio or TV program.											
Run a 16mm projector, video tape or slide tape machine.											
Use an offset printing press.											
Transfer voices or music from one tape to another.											
Sell classified ads.											
Compute advertising rates high enough to make a profit.											
Conduct an interview.											
Make sketches for a book.											
Paint a landscape.											
Build and paint stage props.											
Apply makeup to actors or actresses.											
Perform acrobatic stunts.											
Imitate characters.											
Act in a stage play.											
Direct a stage play.											
Carve a statue from clay.											
Develop an original dance or gymnastic routine for a stage play.											
Write a verse or poem for a greeting card.											
Play a musical instrument in a band or orchestra.											
Conduct an orchestra or band.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Plan special lighting effects.											
Write the words for a song.											
Clean and purify a pool.											
Plant new grass for lawns.											
Hold an exercise class for weight reducers.											
Design wigs, fit hair pieces.											
Run a self-service laundry.											
Make alterations on clothes and replace zippers.											
Kill termites, bugs, or vermin.											
Decorate rooms with antiques or nick nacks.											
Register guests in a hotel.											
Cut and shape hair.											
Give facial, scalp massage and manicure.											
Strip tables and reset for the next meal quickly, using correct place setting rules.											
Prepare salads, desserts, entrees, vegetables, and hot breads.											
Plan the details of a menu.											
Set up for catering to a party.											
Read a utilities meter.											
Identify pollution control violations.											
Gather information from the public records.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Make a record of a traffic accident.											
Inform people as to their constitutional rights and responsibilities.											
Organize a club.											
Speak for a group whom you represent.											
Locate prime areas for political signs.											
Understand and give directions.											
Tutor children in reading.											
Tutor children in doing simple mathematical problems.											
Tutor children in making realistic career decisions.											
Lobby for a cause.											
Contrast evidence with non-evidence.											
Hold a mock trial.											
Make up beds and give bed baths.											
Sterilize surgical instruments.											
Be able to understand written instructions.											
Answer the telephone correctly and courteously.											
Administer eye tests.											
Prepare the patient properly.											
Transport people by ambulance, stretcher and wheelchair.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Mix dental fillings.											
Set up emergency oxygen equipment.											
Apply bandages, dressings and drainage tubes, and give first aid.											
Give injections.											
Measure and record temperature, blood pressure, respiration, and pulse.											
Administer personality tests.											
Admit a patient to a hospital, interview outpatients, and record data on charts.											
Process insurance forms.											
Measure solids and liquids in metric weights and measures.											
Use a variety of laboratory equipment, such as a microscope.											
Draw a map of the earth's surface.											
Draw specified chemicals from stock.											
Calculate percentages.											
Compare simple forms of energy.											
Read and interpret mechanical drawings.											
Sort, reduce and analyze data.											
Assist in installation of scientific instruments such as rain and tide guages.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Conduct laboratory experiments.											
Produce a metal alloy.											
Read and interpret electrical schematics.											
Read, record and interpret data from electronic instruments.											
Prepare findings, conclusions and recommendations from data analysis.											
Produce a marketable substitute for a product.											
Select sprays for crops.											
Plant and fertilize crops.											
Operate a tractor and harvest crops.											
Mark and code wildlife.											
Hand pollinate a plant.											
Bank trees to protect buds from freezing.											
Identify diseased or injured fish or wildlife.											
Identify poisonous plants and animals.											
Test the sugar and acid content of citrus trees.											
Determine the cause of eroding soil.											
Know which seasons are best for growing crops and plants.											
Decide what protection certain species of wildlife require.											
Grow a new variety of fruit or vegetable.											

I learned to do this:

	On a Job	In the following courses:							Other Places in School	At Home	Other
		Voc Ed Dist Ed Bus/Shop Home Ec	Math	Eng	Soc Stud	Sci	Arts Drama	PE			
Estimate the grazing capacity of land.											
Operate a greenhouse.											
Change oil and lubricate a vehicle.											
Rent an automobile.											
Make flight reservations.											
Demonstrate use of life-saving equipment.											
Sell a trip ticket to several destinations.											
Compute driving time between various points.											
Give guided tours, handle tourist complaints.											
Pack cargo within assigned weight limits.											
Replace a water pump.											
Install disc or power hydraulic brakes.											
Tune an engine.											
Repair an auto body.											
Administer a driver's test.											
Plot the course to be flown.											
Organize a charter trip.											

If you have earned money by doing some of these kinds of work, please write the kinds of work here: ______________________________

____

____

EDUCATIONAL PROGRESS IN CAREERS

#5a - Attitudes Toward School and Careers

Please DO NOT put your name on this form.

Grades 2 through 4

Grade ____________________

You will have 5 minutes to complete this form.

School ____________________

Directions: Please circle "Yes," "No," or "Don't Know" for each statement below.

Yes No Don't Know 1) I like school.

Yes No Don't Know 2) I like to read.

Yes No Don't Know 3) Teachers are helpful.

Yes No Don't Know 4) I like school when we play games.

Yes No Don't Know 5) Other students like me.

Yes No Don't Know 6) School is more interesting when visitors tell us about their work.

Yes No Don't Know 7) If I work hard, I can do well in school.

Yes No Don't Know 8) Teachers like me.

Yes No Don't Know 9) I like to write.

Yes No Don't Know 10) School work is fun.

Yes No Don't Know 11) I am smart.

Yes No Don't Know 12) I am learning how people use money.

Yes No Don't Know 13) I am learning about different jobs.

Yes No Don't Know 14) I have talked to workers about their jobs.

Yes No Don't Know 15) I have watched workers do different kinds of work.

Yes No Don't Know 16) I am learning how to make money.

Yes No Don't Know 17) I am planning for my career.

Yes No Don't Know 18) I will choose my career when I get to junior high school or middle school.

Yes No Don't Know 19) I will choose my career when I get to senior high school.

Yes No Don't Know 20) I am learning to read, write, spell and speak correctly.

Yes No Don't Know 21) I do my school work without a lot of help from the teacher.

Yes No Don't Know 22) I will choose my career when I get to

EDUCATIONAL PROGRESS IN CAREERS

#5b - Attitudes Toward School and Careers

Please DO NOT put your name on this form.

Grades 7 through 12

Grade ______________________

You will have 10 minutes to complete this form.

School ______________________

Directions: Please circle the number which describes your feelings about each statement below. Circle 5 if you strongly agree; circle 4 if you agree; circle 3 if you are undecided; circle 2 if you disagree; and, circle 1 if you strongly disagree.

5 4 3 2 1 1) I like school.

5 4 3 2 1 2) I like to read.

5 4 3 2 1 3) Teachers are helpful.

5 4 3 2 1 4) I like school when we play games.

5 4 3 2 1 5) Other students like me.

5 4 3 2 1 6) I accomplish what I set out to do.

5 4 3 2 1 7) School activities are worthwhile.

5 4 3 2 1 8) I learned skills in school which I can use to make money.

5 4 3 2 1 9) I would not drop out of school even if I were given the opportunity.

5 4 3 2 1 10) School is more interesting when visitors tell us about their work.

5 4 3 2 1 11) School has helped me develop a positive attitude toward life in general.

5 4 3 2 1 12) If I work hard I can do well in school.

5 4 3 2 1 13) My school work will help me as my career progresses.

5 4 3 2 1 14) I can complete my school work without much help.

5 4 3 2 1 15) I would rather be studying in school than working full time.

5 4 3 2 1 16) School has helped me develop a positive attitude toward work.

5 4 3 2 1 17) Teachers like me.

5 4 3 2 1 18) I like to write.

5 4 3 2 1 19) School subjects are interesting.

5 4 3 2 1 20) I am intelligent.

5 4 3 2 1 21) I like to participate in group discussions.

5 4 3 2 1 22) I like to do independent research.

Students should:

5 4 3 2 1 1) Understand our economic system.

5 4 3 2 1 2) Explore different occupations.

5 4 3 2 1 3) Know which workers are in demand.

5 4 3 2 1 4) Know the education and training requirements of different occupations.

5 4 3 2 1 5) Talk to workers about their careers.

5 4 3 2 1 6) Observe workers who do different kinds of work.

5 4 3 2 1 7) Decide how to make money.

5 4 3 2 1 8) Plan for a career in elementary school.

5 4 3 2 1 9) Plan for a career in middle school or junior high school.

5 4 3 2 1 10) Plan for a career in senior high school.

5 4 3 2 1 11) Plan for a career and an alternate career.

5 4 3 2 1 12) Develop skills for reading, writing, spelling, and communications.

5 4 3 2 1 13) Develop skills for different kinds of work.

5 4 3 2 1 14) Complete school tasks with a minimum of assistance.

5 4 3 2 1 15) Develop work habits for acquiring a job.

5 4 3 2 1 16) Be prepared for a job interview.

EDUCATIONAL PROGRESS IN CAREERS

Student Critique

Grades 7 and 8

Please DO NOT put your name on this form.

Grade ______________________

School ______________________

Directions: Check the tests that you preferred working with today. Then check the tests that you did not prefer.

Has any teacher (T), counselor (C) or occupational specialist (OS) worked with you on questions similar to the ones used in these tests? Please circle T, C or OS

	Preferred	Not Preferred				
Attitudes Toward School and Careers	______	______	. . . .	T	C	OS
Worker Titles	______	______	. . . .	T	C	OS
Workers in Different Industries	______	______	. . . .	T	C	OS
Preparation for Careers	______	______	. . . .	T	C	OS
Knowledge of the Economic System	______	______	. . . .	T	C	OS
Career Planning	______	______	. . . .	T	C	OS
Considering Careers	______	______	. . . .	T	C	OS

Please tell us in your own words about your experience here today:

____

____

EDUCATIONAL PROGRESS IN CAREERS

Student Critique

Grades 10 through 12

Please DO NOT put your name on this form.

Grade ______________________

School ______________________

Directions: Check the tests that you preferred working with today. Then check the tests that you did not prefer.

Has any teacher (T), counselor (C) or occupational specialist (OS) worked with you on questions similar to the ones used in these tests? Please circle T, C or OS if they worked with you:

	Preferred	Not Preferred	when you were in junior high, or middle school.	since you have been in senior high school.
Attitudes Toward School and Careers	______	______	T C OS	T C OS
Worker Titles	______	______	T C OS	T C OS
Career Planning	______	______	T C OS	T C OS
Considering Careers	______	______	T C OS	T C OS
Acquiring and Maintaining a Job	______	______	T C OS	T C OS
Inventory of Work Skills	______	______	T C OS	T C OS
Knowledge of the Economic System	______	______	T C OS	T C OS
Job Requirements and Functions	______	______	T C OS	T C OS

Please tell us in your own words about your experience here today:

____

____

Instruments Which Measure Teacher, Administrative, and Community Performance

WILLARD D. DOVER, President
Broward

J. B. STANCLIFFE, Vice President
Palm Beach

JOHN B. LAKE, Secretary
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Teacher's Questionnaire

School District ____________________

School Name ____________________

Please check your grade level:

_____ Elementary

_____ Middle or Junior High

_____ Senior High

This questionnaire is designed to help identify the current nature and scope of some of the career-economic activities in your school district. When you have completed the form, please return it to your career education coordinator.

Thank you for your effort and cooperation.

Educational Progress in Careers, 2411 E. Las Olas Boulevard, Fort Lauderdale, Florida 33301 (305) [illegible]

Component #1 - Knowledge of the Economic System

Please check all of the areas of economics listed below which you have incorporated into the subject(s) you teach. Do this by checking the subject(s) you were teaching when you used the economics examples:

Subject(s) you were teaching:

8 Economic Areas	Math	English or Language Arts	Social Studies	Science	Art/Drama/Music	Physical Education	Home Economics	Business or Distributive Education	Industrial Arts	Other: (Please Specify)
1) Profits										
2) Productivity and the Market										
3) Labor Market Demand										
4) Consumer Economics										
5) Business Cycles and Monetary Policy										
6) The Roles of Government										
7) International Trade and Monetary Policy										
8) Comparative Economics										

Component #2 - Knowledge of Occupations

Directions: Please check all of the occupations below to which your students were exposed since September 1975, as a direct result of your own planning, coordination and teaching.

CONSTRUCTION (E)
Air Cond. Mechanic
Architect
Bricklayer
Carpenter/Cabinet Maker
Electrician
Equipment Operator
Painter
Plumber
Roofer
Sheet Metal Worker

MANUFACTURING (E)
Drafter
Electronics Technician
Expediter
Garment Cutter
Industrial Maint. Mechanic
Machinist
Quality Control Tech.
Tool and Die Maker
Upholsterer/Furn. Finisher
Welder

RETAILING/WHOLESALING
Appliance Repair Specialist
Buyer/Fash. Coord./Model
Cashier/Sales Clerk
Display Specialist
Sales Person, Commission
Security Person
Ship/Receive/Inv. Clerk
Supermarket Stock Worker
Vending Mach. Route Person
Wholesaler/Warehouse Oper.

BUSINESS/OFFICE/ACCOUNTING
Bookkeeper/Bus. Mach. Oper.
Certified Public Accountant
Clerk Typist
Computer Programmer/Analyst
Keypunch Operator
Office Machine Serv. Person
Payables/Payroll Clerk
Receivables/Credit Clerk
Secretary/Stenographer
Switchboard Operator

BANKING/INS./R.ESTATE/SECUR.
Bank President/V. Pres.
Insurance Adjuster
Insurance Agent/Sales
Loan Officer
Market Research Analyst
Mortgage Solicitor
Real Estate Sales/Broker
Stock Broker
Teller
Underwriter

MASS COMMUNICATIONS
Ad. Layout/Makeup Spec'st
Camera Oper./Project'ist
Copywriter
Editor
Offset Press Operator
Photographer
Printer
Publisher
Recording Engineer
Reporter

ENTERTAINMENT/ARTS
Amusement Park Oper.
Artist/Sculptor
Dancer/Singer
Director/Producer
Horse Trainer
Musician/Composer
Stage Lighting Tech.
Stage Manager
Theatre Manager
Usher/Ticket Taker

PERSONAL/HOTEL/RESTAURANT
Cook/Chef/Caterer
Cosmetologist
Custodian/Janitor
Desk Clerk
Exterminator/Lawn Sprayer
Hotel/Rest./Franchise Oper.
Maid/Housekeeper
Maitre'D/Waiter/Waitress
Mortician/Undertaker
Tailor/Sewer/Mender

GOVERNMENT/UTIL./PUBLIC SERV.
Counselor/Social Worker
Firefighter
Government Employee
Lawyer
Military Person
Police Officer
Politician
Teacher/Child Care Worker
Telephone Equip. Installer
Water Treatment Operator

HEALTH
Dental Para-Auxiliary
Dentist
Dietician
Hospital Para-Auxiliary
Nurse; LPN/RN
Optometrist
Pharmacist
Physician
Veterinarian
X-Ray Technician

SCIENCE/TECHNOLOGY
Engineer, Civil/Environ.
Eng., Civil/Structural
Engineer, Electrical
Engineer, Electronic
Engineer, Industrial
Engineer, Mechanical
Engineer, Oceanic
Engineer, Traffic
Meteorologist
Research Analyst

FARMING/RANCHING/NATURAL R
Crop Duster
Dairy Route Carrier
Diver
Farm Equipment Mechanic
Farmer
Harvest Hand, Citrus
Horticulturist/Nursery Wor
Miner
Rancher/Animal Breeder
Water-Well Driller

TRANSPORTATION (E)
Airline Pilot
Auto Body Repairer
Auto Mechanic
Auto Rental Agent
Driver, Truck
Longshore Worker
Service Station Attendant
Stewardess/Steward
Ticket/Reservation Agent
Travel Agent

170

Component #4 - Employment-Entry Skills

(High School Staff only)

Directions: Please check all of the skills (used on the job) that you taught to students since September 1975. Draw a circle around your check if you issued a Certificate of Skill Mastery to a student who demonstrated a proficiency of tha skill.

__ Drive heavy equipment, such as a tractor, bulldozer, grader, etc.
__ Correct defects by rubbing, chiseling, grinding, sanding.
__ Erect a scaffold.
__ Cover surfaces with paints, varnish, stain, enamel.
__ Cut and lay tiles and terra cotta.
__ Pour and smooth concrete.
__ Erect forms for pouring concrete.
__ Mix mortar and set stones or bricks using a trowel.
__ Install fuses, conduits, and switches.
__ Install plumbing and fixtures using a threading die.
__ Erect frame walls from 2 x 4 boards, using a hammer and saw.
__ Set door and window frames; install cabinets.
__ Select building materials for a job.
__ Estimate the cost of materials for a job.
__ Make drawings of a building to __ scale.

__ Sketch simple and complex devices.
__ Make drawings of a set of parts to scale.
__ Write purchase orders for vendor parts.
__ Transfer a pattern to materials.
__ Fire pottery in a kiln.
__ Machine metals to specifications.

__ Weld metal joints or heat treat metal to specifications.
__ Make a sand mold and produce a casting.
__ Mold fiberglass with metal using epoxies.
__ Solder electronic parts.
__ Make or assemble parts from programmed directions, within specifications.
__ Arrange the layout of work on an assembly line.
__ Expedite parts and materials for continuous production.
__ Inspect parts for size, finish and defects.
__ Test a product within specifications, using a voltmeter or a pressure guage.

__ Arrange window displays.
__ Make appliance repairs.
__ Operate a cash register and give correct change.
__ Give credits for items returned and make out credit forms.
__ Set up a maximum dollar purchase credit checking system and screen credit applications.
__ Take orders for products by telephone, and quote accurate delivery dates.
__ Compare values on a cost-per-unit basis.
__ Train workers to demonstrate new products and assist customers.

__ Gather information about a competitors product.
__ Select and mark-down merchandise for sale.
__ Keep updated files on incoming shipments and code incoming merchandise.
__ Order new goods based on a computer report of items sold.
__ Make periodic inventory counts and compute inventory values.
__ Compute an invoice and bill of lading.
__ Promote a profit-making event.

__ Write business letters.
__ Take dictation in shorthand and transcribe into readable copy.
__ Type rough drafts of letters and reports from a dictating machine.
__ Keep a well-organized correspondence file.
__ Run a switchboard; sort and distribute mail.
__ Operate a 10-key calculating machine.
__ Prepare a budget and estimate when to cut off spending to remain within budget.
__ Record business transactions as debits and credits.
__ File an Income Tax Form.
__ Produce payroll checks, withholding and social security records.
__ Keep an accurate accounts receivable file.
__ Keypunch alphanumeric data into punched cards and edit coded work using a verifier.

__ Program a computer, using a systems flowchart and operate a sorter, collator and reproducer.
__ Express sales versus costs with charts or graphs.
__ Produce a balance sheet and profit/loss statement.

__ Cash payroll and personal checks.
__ Balance a checking or savings account.
__ Compare the rate of return on different investments.
__ Apply for and use credit cards.
__ Evaluate the best insurance offered by competing companies.
__ File an insurance claim.
__ Explain the need for life insurance.
__ Accept, count, and record withdrawals and deposits.
__ Balance receipts and payouts.
__ Use a multiple-listing book.
__ Compare the profits of various industries.
__ Examine the records of a business for accuracy.
__ Buy and sell stocks.
__ Apply for a loan.
__ Compute interest and collect loan payments.

__ Write or rewrite news articles with a typewriter, and proof copy.
__ Write a review of a book, play, or movie.
__ Develop advertising layouts which introduce new products.
__ Write advertisements or slogans.
__ Write the lead for a news story.
__ Develop film and enlarge prints.
__ Select pictures and write captions for publication.
__ Determine newspaper layout of pictures and copy.
__ Produce a school newspaper, radio or TV program.
__ Run a 16mm projector, video tape or slide type machine.
__ Use an offset printer.
__ Transfer voices or music from one tape to another.
__ Sell classified ads.
__ Compute advertising rates high enough to make a profit.
__ Conduct an interview.

__ Make sketches for a book.
__ Paint a landscape.
__ Build and paint stage props.
__ Apply makeup to actors or actresses.
__ Perform acrobatic stunts.
__ Imitate characters.
__ Act in a stage play.
__ Direct a stage play.
__ Carve a statue from clay.
__ Develop an original dance or gymnastic routine for a stage play.
__ Write a verse or poem for a greeting card.
__ Play a musical instrument in a band or orchestra.
__ Conduct an orchestra or band.
__ Plan special lighting effects.
__ Write the words for a song.

__ Clean and purify a pool.
__ Plant new grass for lawns.
__ Hold an exercise class for weight reducers.
__ Design wigs, fit hair pieces.
__ Run a self-service laundry.
__ Make alterations on clothes and replace zippers.
__ Kill termites, bugs, or vermin.
__ Decorate rooms with antiques or knick knacks.
__ Register guests in a hotel.
__ Cut and shape hair.
__ Give facial, scalp massage and manicure.
__ Strip tables and reset for the next meal quickly, using correct place setting rules.
__ Prepare salads, desserts, entrees, vegetables, and hot breads.
__ Plan the details of a menu.
__ Set up for catering to a party.

__ Read a utilities meter.
__ Identify pollution control violations.
__ Gather information from the public records.
__ Make a record of a traffic accident.
__ Inform people as to their constitutional rights and responsibilities.
__ Organize a club.
__ Speak for a group whom you represent.
__ Locate prime areas for political signs.
__ Understand and give directions.
__ Tutor children in reading.
__ Tutor children in doing simple mathematics problems.
__ Tutor children in making realistic career decisions.
__ Lobby for a cause.
__ Contrast evidence with non-evidence.
__ Hold a mock trial.

__ Make up beds and give bed baths.
__ Sterilize surgical instruments.
__ Be able to understand written instructions.

__ Answer the telephone correctly and courteously.
__ Administer eye tests.
__ Prepare the patient properly.
__ Transport people by ambulance, stretcher and wheelchair.
__ Mix dental fillings.
__ Set up emergency oxygen equipment.
__ Apply bandages, dressings and drainage tubes, and give first aid.
__ Give injections.
__ Measure and record temperature, blood pressure, respiration, and pulse.
__ Administer personality tests.
__ Admit a patient to a hospital, interview outpatients, and record data on charts.
__ Process Insurance forms.

____

__ Measure solids and liquids in metric weights and measures.
__ Use a variety of laboratory equipment, such as a microscope.
__ Draw a map of the earth's surface.
__ Draw specified chemicals from stock.
__ Calculate percentages.
__ Compare simple forms of energy.
__ Read and interpret mechanical drawings.
__ Sort, reduce and analyze data.
__ Assist in installation of scientific instruments such as rain and tide guages.

__ Conduct laboratory experiments.
__ Produce a metal alloy.
__ Read and interpret electrical schematics.
__ Read, record and interpret data from electronic instruments.
__ Prepare findings, conclusions and recommendations from data analysis.
__ Produce a marketable substitute for a product.

____

__ Select sprays for crops.
__ Plant and fertilize crops.
__ Operate a tractor and harvest crops.
__ Mark and code wildlife.
__ Hand pollinate a plant.
__ Bank trees to protect buds from freezing.
__ Identify diseased or injured fish or wildlife.
__ Identify poisonous plants and animals.
__ Test the sugar and acid content of citrus trees.
__ Determine the cause of eroding soil.
__ Know which seasons are best for growing crops and plants.
__ Decide what protection certain species of wildlife require.
__ Grow a new variety of fruit or vegetable.
__ Estimate the grazing capacity of land.
__ Operate a greenhouse.

____

__ Change oil and lubricate a vehicle.
__ Rent an automobile.
__ Make flight reservations.
__ Demonstrate use of life-saving equipment.
__ Sell a trip ticket to several destinations.
__ Compute driving time between various points.
__ Give guided tours, handle tourist complaints.
__ Pack cargo within assigned weight limits.
__ Replace a water pump.
__ Install disc or power hydraulic brakes
__ Tune an engine.
__ Repair an auto body.
__ Administer a driver's test.
__ Plot the course to be flown.
__ Organize a charter trip.

#8 - Staff Assistance

Directions: Circle "A" if students are receiving staff assistance on this activity.
Circle "O" if staff members are involved other than the ones you believe should be responsible for helping students.

A O 1) Watch people on instructional television doing various kinds of work.

A O 2) Read trade journals, brochures or magazines with articles about careers, or write to companies for brochures.

A O 3) Participate in career days or career week.

A O 4) Use a career resource center in the school district.

A O 5) Use Project VIEW (Vital Information for Education and Work) in securing labor market information.

A O 6) Observe workers who come to school and talk to students about their careers.

A O 7) Watch someone, at their place of work, do work which interests the student.

A O 8) Compare occupations within career fields and their related life styles.

A O 9) Develop knowledge of education/training required, salary range, and job conditions.

A O 10) Select academic and vocational courses appropriate to specific career areas.

A O 11) Develop skills for acquiring and maintaining a job.

A O 12) Demonstrate how academic and vocational skills are used in the "World of Work".

A O 13) Develop skills and attitudes for the job interview.

A O 14) Decide when a career requires higher education and when it does not.

A O 15) Assist parents to understand what is involved in developing a student's ability to make a career choice.

We would appreciate your overall comments as to the extent of Career-Economic Education implementation in your school . . . problems associated . . . and any other observations you may wish to make.

____

____

____

#8 - Staff Attitudes

Directions: Please circle the most appropriate response for each of the following statements.

Do you believe that:

Yes	No	Don't Know	1)	Career guidance skills are an important for teachers to use?
Yes	No	Don't Know	2)	Teachers have become more effective since implementing career education activities? If yes, how?
Yes	No	Don't Know	3)	Occupational specialists have increased staff effectiveness? If yes, how?
Yes	No	Don't Know	4)	Counselors have increased staff effectiveness by using career education strategies? If yes, how?
Yes	No	Don't Know	5)	Grades should be based primarily on the completion of assigned tasks, as well as test scores? If yes, why?
Yes	No	Don't Know	6)	A "certificate of skill mastery" should be issued to students who master academic or vocational skills which can be used on a job? If yes, why?
Yes	No	Don't Know	7)	Secondary teachers should work one month of each year in a business environment to broaden their views of an ever-changing economic world?
Yes	No	Don't Know	8)	New career education instructional units are popular with students?
Yes	No	Don't Know	9)	Career education is contributing to higher academic achievement?
Yes	No	Don't Know	10)	Career education is contributing to a reduction in disciplinary problems?

EDUCATIONAL PROGRESS IN CAREERS

Career Education Director's Questionnaire

School District ______________________________

Name of Career Education Director ______________________________

Address of Career Education Director ______________________________

Telephone ______________________________

In your District, there are:

_________ Elementary Schools with _________ students.

_________ Middle and/or Junior High Schools with _________ students.

_________ Senior High Schools with _________ students.

Overview of Career-Economic-Community Education Implementation

1) Has the school board endorsed career education as a district priority? Yes No

2) Has a career education coordinating council, screening committee, advisory council, etc. been established involving representatives from industry, labor, professions, and government, with parents and educators? Yes No

3) Has a labor-market information system been implemented (such as Project VIEW)? Yes No

4) Is there a district plan to reduce racial bias and sex-stereotyping in curriculum and occupational decision-making? Yes No

5) Is there a career-referenced-course registration system (at about the 9th grade) in the district in which students are encouraged to register for courses which will help them develop work skills required by a particular career area? Yes No

6) Has the district collected data on student performances in career education activities in addition to process data? Yes No

7) Has a "community attitudes toward career education" survey been implemented? Yes No

8) Since the start of career education in the district, in 197___, how much has been expended to support the career education p[illegible]am?

Total $__________ State $__________ Federal $__________ Local $__________

9) What percentage of the current career education budget is funded by the district? __________

10) What number __________ and percentage ________ of the career education staff are funded by the district?

11) How many of the schools do not have either a career counselor or an occupational specialist?

Elementary _____ Middle and Junior High _____ Senior High _____

12) Has the responsibility for planning and implementing economic education been assigned to specific district staff members? Yes No

13) Does the district provide educational, recreational and cultural services with open-enrollment to all interested members of the community? Yes No

14) What percentage of the schools are on some variation of the year-round concept?

Elementary _____% Middle (Junior High) _____% Senior High _____%

15) Have any community education or community-school evaluations been performed in the district with findings and recommendations? Yes No

Component #8 - Staff Development

1) Since beginning the career education project in 19__, what percentage of the different types of staff listed below have been involved with the in-service programs listed below?

	District-Level Administrators and Supervisors	School-Level Administrators	Grade-Level Department Chairpersons	Guidance and Counseling Personnel	Occupational Specialists	Librarians and Media Specialists	Elementary Teachers	Middle and Junior High Teachers	Senior High Teachers
Orientation to career education									
Development of career education materials									
Development of career resource centers									
Career exploration through the 5 academic areas									
Guidance strategies									
Occupational specialist training programs									
Communication skills									
Program for interns or student teachers									
Other (please describe)									

2) What type of compensation did staff members receive for the workshops? (Please circle the appropriate item(s).

a) Release-Time
b) Money over-and-above salary
c) Points toward renewal of teaching certificate
d) College credit
e) Other ________________

3) What kind of funds were used for the workshops?

a) State Funds
b) Federal Funds
c) Local District Funds
d) Business/Industry Grants
e) Other ________________

EDUCATIONAL PROGRESS IN CAREERS

Placement/Follow-Up Director's Questionnaire

School District ______________________________

Name of District Placement/Follow-Up Director ______________

Address of District Placement/Follow-Up Director ______________

Telephone ______________________________

Component #7 - Placement/Follow-Up

Since September 1, 1974:

1) What was the approximate percentage of students in the last graduating class who went on to:

   a) Higher education? _____%

   b) Full-time employment? _____%

   c) Post-secondary vocational schools? _____%

   d) Military? _____%

   e) Adult evening school? _____%

   f) Commercial/private schools? _____%

   g) Homemaking? _____%

   h) Traveling? _____%

2) What number __________ and percentage _______ of all graduates were mailed a follow-up questionnaire?

3) What number __________ and percentage _______ of all graduates returned the questionnaire?

4) What was the approximate number _________ and percentage _______ of all graduates who had at least one paying job before leaving school?

5) What number of 9th through 12th graders have been placed on a job as a result of:

   a) Employers contacted by members of the placement staff? _________

   b) Employers calling the schools? _________

   c) Referrals by the Florida State Employment Service? _________

6) What number __________ and percentage _______ of all 9th through 12th graders in the school district made contact with a person responsible for student placement?

7) What number __________ and percentage _______ of all dropouts were given information on part-time education facilities in the community?

8) What number __________ and percentage _______ of the employers who hired graduates have submitted an evaluation of student productivity on the job?

9) How many of the senior high schools in the district have a person responsible for student placement? __________ out of __________ senior high schools.

10) What are the other district functions of the person responsible for student placement? ____

____

____

____

11) What training does each person responsible for student placement receive?

____

____

____

____

____

____

Thank you for your effort and cooperation.

EDUCATIONAL PROGRESS IN CAREERS

School Coordinator's Questionnaire

School District ____________

School Name ____________

Principal's Name ____________

School Address ____________

Coordinator's Name ____________

Telephone ____________

____
(Counselor or Occupational Specialist)

Approximately how many students are in the school at each grade level?

______th Grade	______	______th Grade	______
______th Grade	______	______th Grade	______
______th Grade	______	______th Grade	______
______th Grade	______	Total All Grades	______

Component #5 - Alternatives for Potential Early School Leavers

(For Coordinators of grades 5 through 12 only.)

1) What is the approximate percentage of the enrollment at each grade level (5 through 12) which has been identified as potential early school leavers?

5th Grade ____%	6th Grade ____%	7th Grade ____%	8th Grade ____%
9th Grade ____%	10th Grade ____%	11th Grade ____%	12th Grade ____%

2) Does the school have a program for the identification of potential early school leavers? Yes ____ No ____

3) Does the school have a program for the referral of potential early school leavers? Yes ____ No ____

4) Is there a current data file with the reasons for the dropouts? Yes ____ No ____

Component #6 - Student-Worker Contacts

Since September 1, 1975, approximately how many students:

1) Went on field trips? ________

Went on 3 or more field trips? ________

2) Took part in career days/fairs? ________

3) Took part in shadowing experiences, where the student spends a day or two with people who are working in an occupation of interest to the student (grades 7 through 12 only)? ________

4) Took part in employer-based or vocational cooperative programs, such as work experience (grades 9 through 12 only)? ________

Since September 1, 1975, approximately how many people from the community:

5) Were involved in career days/fairs? ________

6) Visited the classrooms to discuss careers? ________

Is there a file or scrapbook in the school of student reactions to the following?

7) Field trips? Yes No

8) Career days/fairs? Yes No

9) Shadowing experiences (grades 7 through 12 only)? Yes No

10) Employer-based cooperative programs (grades 7 through 12 only)? Yes No

11) Workers visiting students? Yes No

12) Does the school have a community resource directory, which provides names, addresses, and telephone numbers of community members who have registered a willingness to come to the schools to talk to students about their work, or who have requested students to visit their own place of work on a field trip? Yes No

Thank you for your effort and cooperation.

WILLARD D. DOVER, President
Broward

J. B. STANCLIFFE, Vice President
Palm Beach

JOHN B. LAKE, Secretary
Pinellas

HOWARD W. NIX, Jr., Treasurer
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#7/8 - Community Needs Survey

Dear Community Member:

EPIC, Incorporated was organized by the Florida Council of 100 to help Florida's public education system better prepare your children for their life in the real economic world. Educators tell us that realistic education develops greater interest and attention in the student and that, in turn, develops a life-long interest in education both in school and at work.

In order for education to be realistic it must prepare each student to understand our economic system and to compete in our productive society in order to succeed within it.

Educators have developed programs of career-economic-community education which they believe will do these important jobs. Their success requires a continued enthusiasm and involvement of business and industry in each local community.

EPIC, Incorporated has contracted with the Vocational, Technical, and Adult Education Division of the Florida Department of Education to develop a system for evaluating these programs. A Statewide Evaluation Committee has been assembled from business, industry and labor to act as our "sounding board."

If these developing programs demonstrate the capability of better preparing Florida students for their future, we intend to promote such programs with business, industry and the general public.

We would be grateful for your review and contribution to the EPIC Project by completing the following pages.

Yours very truly,

Willard D. Dover

WDD/dd

Educational Progress in Careers, 2411 E. Las Olas Boulevard, Fort Lauderdale, Florida 33301 (305) 525-9622

Part a - Community Attitudes

Directions: The following goals have been suggested by members of the EPIC Statewide Evaluation Committee. Please circle the letters which best describe how each goal reflects your own personal goals. For example: SA (Strongly Agree), A (Agree), N (Neutral), D (Disagree), SD (Strongly Disagree). Also, please circle the I next to each statement if you have been involved with that goal as part of the school district program.

Teachers should help students to:

SA A N D SD | I 1) Understand the development and workings of our economic system.

SA A N D SD | I 2) Understand some general ways to make a living with an enjoyable job.

SA A N D SD | I 3) Explore a variety of different occupations.

SA A N D SD | I 4) Explore the education and training requirements of a variety of different occupations.

SA A N D SD | I 5) Appreciate a work-oriented life style.

SA A N D SD | I 6) Arrange for workers to come to school and talk to students about their job or career.

SA A N D SD | I 7) Observe a variety of different workers in the community through field trips, in order to qualify personal interests for different kinds of work.

SA A N D SD | I 8) Plan for a career and be prepared to make realistic career decisions.

SA A N D SD | I 9) Select academic and vocational courses to prepare for the eventuality of changing careers.

SA A N D SD | I 10) Develop skills for reading, writing, spelling, and communications and emphasize the relationship between academic subjects and skills required on the job.

SA A N D SD | I 11) Develop specialized skills for a variety of different jobs and careers.

SA A N D SD | I 12) Place values on the working conditions and life styles inherent in different careers.

SA A N D SD | I 13) Develop productive work habits for acquiring and maintaining a job.

SA A N D SD | I 14) Develop positive attitudes for acquiring and maintaining a job.

SA A N D SD | I 15) Know how to conduct themselves during the job interview.

SA A N D SD | I 16) Know what jobs are available through continual contact with the school placement office.

SA A N D SD | I 17) Have at least one paying job before leaving school.

SA A N D SD | I 18) Complete assigned tasks with a minimum of supervision.

SA A N D SD | I 19) Involve parents in understanding what is involved in making a career choice.

SA A N D SD | I 20) Make school interesting so that students will not drop out.

We would appreciate your overall comments: ______________________________

Part b - Community Facility and Program Needs

Directions: Please circle the letter(s) which correspond to your need for each community education goal, as follows:

SA A N D SD 1) Provide educational, recreational and cultural services for every interested member of the community on a year-round extended-hours basis.
SA A N D SD 2) Make community members aware that education is a life-long process.
SA A N D SD 3) Prepare community members for the productive use of leisure time.

Directions: Please circle the letter A, I or N which indicates the status of each program, service, facility or agency in your community, as follows:

The Program, Service or Facility is:

A - Adequate for the community's needs
I - Inadequate for the community's needs
N - Not needed in the community

Program, Service, Facility, Agency

A I N 1) Public library.
A I N 2) Evening courses to benefit adults of all ages with training, vocational, and craft skills.
A I N 3) Supervised recreation for children to develop sports, artistry, crafts, and musical talents.
A I N 4) Program for the mentally retarded.
A I N 5) Program for the handicapped.
A I N 6) Anti-drug abuse program.
A I N 7) Anti-vandalism program.
A I N 8) Program to help the aged.
A I N 9) Safety in the neighborhood program.
A I N 10) City beautification project.
A I N 11) Adult employment program.
A I N 12) Adult recreation program.
A I N 13) Community problem-solving programs developed by citizen advisory councils.
A I N 14) Housing program.
A I N 15) Radio, TV, or commercial educational TV programs, e.g. careers, child development, continuing education, etc.
A I N 16) Little League programs.
A I N 17) Cultural programs, e.g. local playhouse, choral, musical groups.
A I N 18) Bi-lingual education.
A I N 19) Band concerts.
A I N 20) Free food program.
A I N 21) Newsletters to community families announcing special educational programs.
A I N 22) Volunteers to work with programs, e.g. tutors, library and teacher aides, playground or lunchroom coordination, homeroom mothers, etc.
A I N 23) College recruiting sessions which present career and occupational trends rather than majors or minors.
A I N 24) Senior citizens shuttle service to aid people attending meetings, shopping, etc.
A I N 25) School facilities for after-hour recreation, counseling, employment, or health care use.
A I N 26) Community facilities for day-time educational use.
A I N 27) Nursing homes.

A I N 28) Public swimming Pool.
A I N 29) Skating rink.
A I N 30) Health spa.
A I N 31) Police.
A I N 32) Churches.
A I N 33) Radio stations.
A I N 34) Social security ffice.
A I N 35) City council.
A I N 36) Family planning clinic.
A I N 37) Health department.
A I N 38) Newspapers.
A I N 39) TV stations.
A I N 40) Civic groups.
A I N 41) Foster child agency.
A I N 42) Bureau of rehabilitation services.
A I N 43) University.
A I N 44) Community colleges.
A I N 45) Community schools.
A I N 46) YMCA.
A I N 47) Child care agencies.
A I N 48) 4-H Club.
A I N 49) Employment agencies.
A I N 50) Manpower planning council.
A I N 51) Boy/Girl Scouts.
A I N 52) Housing authorities.
A I N 53) Neighborhood Youth Corp.
A I N 54) Parent Teacher Association.
A I N 55) Private schools.
A I N 56) United Fund.
A I N 57) Junior Achievement.
A I N 58) County commissioners.
A I N 59) Agricultural extension agent.
A I N 60) Welfare agencies.

List any other programs, services, facilities or agencies which do not now exist and are needed by the community:

EDUCATIONAL PROGRESS IN CAREERS

Part c

Directions: Please check the courses listed below that you would like to take if they were offered in your community at an appropriate time and place:

CONSTRUCTION

___ Algebra
___ Architectural Design
___ Basic Electricity
___ Blueprint Reading
___ Cabinet Making
___ Carpentry
___ Do-it-yourself Wiring
___ Do-it-yourself Plumbing
___ Drafting
___ Garage Construction
___ Home Repair
___ House Construction
___ Landscaping
___ Modern Math
___ Wood Shop

MANUFACTURING

___ Auto Body Repair
___ Auto Upholstering
___ Bicycle Repair
___ Carburetor Repair
___ Crafts-Metals/Leather
___ Dyeing, wool yarn/fabrics
___ Furniture Refinishing/Repair
___ Glass Blowing
___ Instrument Repair
___ Model Building
___ Motorcycle Maintenance
___ Outboard Motor Repair
___ Upholstery
___ Weaving
___ Welding

RETAILING AND WHOLESALING

___ Advertising
___ Antiquing
___ Consumer Behavior
___ Consumer Education
___ Fashion/Apparel Marketing
___ Introduction to Marketing
___ Marketing Policy/Strategy
___ Marketing Research
___ Modeling
___ Retailing Management
___ Sales Management
___ Small Business Operation
___ Small Business Promo/Publicity
___ Window Display
___ World Trade

BUSINESS/OFFICE MANAGEMENT/ACCOUNTING

___ Accounting
___ Bookkeeping
___ Business English
___ Business Law
___ Business Psychology
___ Computer Mathematics
___ Computer Programming
___ Data Processing
___ Key Punch Operator
___ Managerial Skills
___ Office Machines
___ Secretarial
___ Shorthand
___ Speed Writing
___ Typing

BANKING/INSURANCE/REAL ESTATE/SECURITIES

___ Business Cycles/Forecasting
___ Corporation Finance
___ Credit/Collection Management
___ Estate Planning
___ Financial Intermediaries
___ Getting the Most For Your Dollar
___ Home buying and Selling
___ How to Buy on Credit
___ Insurance
___ Investing to Beat Inflation
___ Monetary Theory and Policy
___ Money and Banking
___ Principles of Economics
___ Public Finance
___ Retirement Preparation

MASS COMMUNICATIONS

___ Accelerated Reading
___ Applied Phonetics
___ Cartoons
___ Communication Skills
___ Creative Thinking
___ Creative Writing
___ Debate
___ Journalism
___ Lettering
___ Photography
___ Printing
___ Radio/TV Troubleshooting
___ Report Writing
___ Silk Screening
___ Spelling and Vocabulary

ENTERTAINMENT/ARTS

___ Banjo
___ Choral Group Singing
___ Community Bank
___ Drama
___ Folk Dance
___ General Art
___ Guitar
___ History of Music
___ Instrumental Group
___ Interpretive Dancing
___ Modern Dance
___ Music Appreciation
___ Piano
___ Sculpture
___ Tap Dance

PERSONAL/HOTEL/RESTAURANT SERVICES

___ Appliance Repair
___ Astrology
___ Child Care
___ Dog Obedience School
___ Gardening
___ Gourmet Cooking
___ Grooming/Makeup
___ Health Foods
___ Home Management/Family Finance
___ Interior Decorating
___ Pottery
___ Self Hypnosis
___ Tailoring
___ Wig Styling
___ Wine Making

GOVERNMENT/UTILITIES/PUBLIC SERVICES

___ Career Guidance for Youths
___ Changing World and Times
___ Civil Service Tests
___ Criminal and Social Justice
___ Interviewing Techniques
___ Karate
___ Law Enforcement
___ Scuba Diving
___ Self Defense: Men, Women
___ Power Structure of the Community
___ Sex Education in the Family
___ Slimnastics
___ Social Dancing
___ Swimming Lessons
___ Yoga

HEALTH

___ Child Development
___ Diabetic Cooking
___ Drug Abuse
___ Expecting Parents Class
___ Family Health
___ First Aid
___ Home Nursing
___ How to Stay Healthy
___ Medical Secretary Training
___ Mental Health Services
___ Nurses Aid
___ Nutrition
___ Physically Handicapped
___ Psychology
___ Speech Therapy

SCIENCE AND TECHNOLOGY

___ Biology
___ Botany
___ Chemistry
___ Climatology
___ Ecology/Pollution
___ Energy Sources
___ General Science
___ Geology
___ Marine Technology
___ Meteorology
___ Oceanography
___ Physics
___ Physiology
___ World Geo
___ Zoology

FARMING/RANCHING/NATURAL RESOURCES

___ Breeding Animals
___ Conservation
___ Farm Machinery/Equipment
___ Fish & Game Preservation
___ Forestry Technology
___ Irrigation
___ Local Wildlife and Bugs
___ Organic Vegetable Gardening
___ Part-Time Farming
___ Plant Propagation, Grafting
___ Raising Meat, Milk, Eggs
___ Rock Collecting
___ Soils, Fertilizers
___ Tree Pruning
___ Wilderness Survival

TRANSPORTATION

___ Aeronautics
___ Aviation Ground School
___ Boating Safety
___ Diesel Engines
___ Driver's Training
___ Function of the Railroads
___ How to be a Host/Hostess
___ How to Plan a Vacation
___ Introduction to Flying
___ Motor Home Traveling
___ Skydiving
___ Small Boat Navigation
___ Travel Film Series
___ Trips and Tours
___ Vehicle-Oriented Society

EDUCATIONAL PROGRESS IN CAREERS

Community Education Director's Questionnaire

School District ____________________

Name of Community Education Director ____________________

Address of Community Education Director ____________________

This questionnaire is designed to help identify the current nature and scope of community education in your school district and in Florida.

Sections VII - XII require information from local school centers. Please reproduce these sections and distribute copies to your local school centers. When they are returned to you, summarize the data and include the results in this report.

Thank you for your effort and cooperation.

GLOSSARY - Please use the following glossary of terms when *responding to the* items in this instrument.

(A) After school - period of time directly following termination of the formal K-12 learning program

(B) Youth - any person 15 years of age or younger

(C) Adult - any person 16 years of age or older

(D) Enrichment Activities - special interest learning experiences without formal credit for participation

(E) Credit Classes - any structured learning experiences wherein units of accomplishment are awarded by schools, community colleges or universities

(F) School Center - any elementary or secondary school recognized by the board of education

(G) Community School Center - a school center which is designated by the board of education as a "community school"

(H) Governmental Agency - any subdivision of local, state or federal government (e.g., family services, agricultural extension, health)

(I) Volunteer and Civic Agency - any non-governmental agency whose primary purpose is to provide service to the citizenry (e.g., Red Cross, Salvation Army, Scouts)

(J) Recreational Agency - any public and/or private agency whose primary purpose is to provide leisure-time services (e.g., camps, hobbyists)

(K) Cultural Agency - any public and/or private agency whose primary purpose is to provide services designed to elevate and refine participants' cultural desires and interests (e.g., Little Theater, music society, museum)

(L) Business and Industry Agency - An organization whose primary function is manufacturing, distributing or providing goods and services for profit (e.g., professional and labor associations, corporations)

(M) Religious Agency - An organization affiliated with a religious denomination or creed

(N) Non-Profit Organization - An organization or agency which is recognized by the state as a non-profit organization

(O) Community Council - An assembly of community members, faculty and others, who are recognized by the board of education to provide advisory or decision-making services

(P) Part-Time Coordinator - all employees whose roles are defined as "community school/education coordinators, directors or supervisors," and who function in these roles 39 or less hours per week

(Q) Community Council - any gathering of community members, including school personnel, who are recognized by the board of education, and who provide advisory or decision-making services

(R) Local Community Council - a community council which addresses itself to one school center and its service area

(S) Regional Community Council - a community council which addresses itself to a region containing two or more, but not all, the school centers in a school district

(T) District-Wide Community Council - a community council which addresses itself to the entire school district

(U) Florida Educational Finance Program - the finance program designated by legislative action that is the basis upon which Florida school districts generate financial support according to the learning needs of their students

I. Please place a check mark (✓) next to each statement which describes the current nature of community education in your school district. Double check mark (✓✓) the one statement which best describes the current nature community education in your school district.

___ A. After school and evening programs for youths and adults with emphasis on credit classes.

___ B. A total system of education based upon maximum utilization of existing human, physical and financial resources.

___ C. Daytime (7:30 A.M. - 5:59 P.M.) programs and activities primarily for youths.

___ D. The systematic involvement of community members in needs assessment, goal setting, delivery of educational experiences and evaluation of the total school program.

___ E. After school and evening programs primarily for adults.

___ F. After school and evening programs for youths and adults with emphasis on non-credit classes.

___ G. An operational philosophy of education which is applied to all learning endeavors of the school system.

___ H. Daytime (7:30 A.M. - 5:59 P.M.) programs and activities primarily for adults.

___ I. A system for community development involving institutions and agencies working in cooperation and coordination with one another.

___ J. After school and evening programs primarily for youths.

___ K. Other (Please write in appropriate descriptive statement.)

____

____

II. Please place a check mark (✓) next to those statements which describe current procedures used to determine community member needs. Place a double check mark (✓✓) next to the one statement which best describes current procedures used to determine community member needs.

___ A. A systematic utilization of procedures for determining community member needs does not exist.

The following procedures are used in your community.

___ B. Observation by professional staff

___ C. Observation of funding trends

___ D. Selection of programs and services by participants from comprehensive offerings

___ E. Board of education members identify needs

___ F. Community council members identify needs

___ G. Needs assessment instruments utilized by professional staff

___ H. Needs assessment instruments utilized by community council members

___ I. Inter-agency council members identify needs

___ J. Selected community organization leaders identify needs

___ K. Intuitiveness and judgement of professional staff

___ L. Volunteers or para-professionals making home visitations

___ M. Need assessments made by other community agencies

___ N. Other--

III. Please place a check mark (✓) next to those statements which describe current procedures used to determine goals and objectives. Place a double check mark (✓✓) next to the one statement which best describes current procedures used to determine goals and objectives.

___ A. Procedures for determining goals and objectives do not exist.

The following procedures are used in your community.

___ B. Professional staff determine goals and objectives

___ C. Community council members determine goals and objectives

___ D. Board of education members determine goals and objectives

___ E. Inter-agency council members determine goals and objectives

___ F. Professional staff establish goals and objectives based upon identified needs

___ G. Community council members establish goals and objectives based upon identified needs

___ H. Board of education members establish goals and objectives based upon identified needs

___ I. Inter-agency council members establish goals and objectives based upon identified needs

___ J. Observation of funding trends

___ K. Other--

IV. Please place a check mark (✓) next to those statements which describe current procedures used to determine specific programs and services. Place a double check mark (✓✓) next to the one statement which best describes current procedures used to determine specific programs and services.

___ A. Procedures for determining specific programs and services do not exist.

___ B. Professional staff determine programs and services

___ C. Community council members determine programs and services

___ D. Board of education members determine programs and services

___ E. Inter-agency council members determine programs and services

___ F. Professional staff determine programs and services to meet goals and objectives

___ G. Community council members determine programs and services to meet goals and objectives

___ H. Board of education members determine programs and services to meet goals and objectives

___ I. Inter-agency council members determine programs and services to meet goals and objectives

___ J. Utilization of available funding

___ K. Other -

V. Please place a check mark (✓) next to those statements which describe current procedures used to evaluate community education. Place a double check mark (✓✓) next to the one statement which best describes procedures used to evaluate community education.

___ A. Procedures for evaluating community education do not exist.

___ B. Professional staff utilized in systematic evaluation

___ C. Community council members utilized in systematic evaluation

___ D. Board of education members utilized in systematic evaluation

___ E. Inter-agency council members utilized in systematic evaluation

___ F. Intuitiveness and judgement of professional staff utilized in systematic evaluation

___ G. Program participants utilized in systematic evaluation

___ H. Other--

VI. Please indicate the number of full and part-time individuals employed directly or indirectly by your school system as community education administrators or coordinators. Do not include in your count principals, teachers or other school faculty who might be considered as community education advocates, but are not employed as community education administrators or coordinators.

Figure 6.1

	No. of Full-time		No. of Part-time	
Personnel	Male	Female	Male	Female
School Center C. E. Administrator/ Coordinator				
Regional C. E. Administrator/ Coordinator				
School System-wide C. E. Administrator/ Coordinator				

VII. Please use the following directions for completing Figure 7.1.

Column A - Place a check mark (✓) in Column A next to each type of community organization or agency which is working in cooperation with your school district in community education.

Column B - Describe the nature of cooperation for each type of organization checked in Column A by placing one or more of the following codes (1-7) in Column B.

(1) share financial resources
(2) share staff members
(3) share buildings
(4) share equipment
(5) share land
(6) coordinate program and service efforts
(7) other--

Column C - Place an X in Column C if the cooperation is supported by written agreement.

Figure 7.1

A	B	C	Type of Community Organization
			City government
			County government
			Federal government
			Community colleges
			Universities
			Agricultural extension
			Business and industry
			Health departments
			Social services
			Recreation departments
			Police departments
			Churches
			Senior citizen services
			Civic clubs (e.g., Jaycees, Civitan, Lions, Rotary)
			United Way (i.e. Community Chest, Red Feather)
			Judicial services
			Other--
			Other--

VIII. Please complete Figures 8.1-8.3 regarding school facility utilization.

Figure 8.1

	Elementary School Centers	Mid. & Jr. High School Centers	High School Centers
A. Total no. of schools in district			
B. No. of schools designated as community school centers			
C. Avg. no. of evenings per week that community school centers are open from 6:00 P.M. on			
D. Estimate in percentage how much of each school center is utilized between 4:00-7:00 P.M.			
E. Estimate in percentage how much of each school center is utilized between 7:00 - 10:00 P.M.			
F. Rank order from 1-(X) the most utilized school facilities. Place a zero (0) in blank if facility not available in majority of school centers	__basic classrms __science lab __artrooms __gymnasium __indust. ed. shop __swimming pool __homemaking lab __school grounds __auditorium __cafeteria __conference rms __others ____ __others ____	__basic classrms __science lab __artrooms __gymnasium __indust. ed. shop __swimming pool __homemaking lab __school grounds __auditorium __cafeteria __conference rms __others ____ __others ____	__basic classrms __science lab __artrooms __gymnasium __indust. ed. sh __swimming pool __homemaking la __school grounds __auditorium __cafeteria __conference rms __others ____ __others ____

Do any school centers in the district house community agencies (e.g., family services, health clinics, social security)?

Yes ______ No ______

If your response is yes, please list the name(s) of the school and the community agency(ies).

______________________ ______________________

______________________ ______________________

If facilities other than school centers are occasionally utilized in your community education endeavors, place a check mark (✓) next to the appropriate type(s) of facility or building in Column A of Figure 8.2. Of those marked, **place a check mark (✓) in Column B if they are utilized on a weekly basis.**

Figure 8.2

A	B	Type of Facility or Building	A	B	Type of Facility or Building
		Church			City government
		Parks & recreation			County government
		Store			State government
		Library			Federal government
		Camp			Health clinic
		University			Hospital
		Community college			Community center
		Abandoned school			Union hall
		Business & industry			Other--
		Agricultural extension			Other--
		Vocational skills center			

Indicate in Figure 8.3 the number and type of organizations* utilizing school center facilities

Figure 8.3

No. of different organizations utilizing facilities in:	Elementary Schools	Middle or Junior High School	High School
Governmental			
Volunteer Civic			
Recreational Cultural			
Business & Industry			
Religious			
Total			

*See Glossary

IX. Please estimate the number of youth and adult enrollments in after school and evening classes/activities provided by your school system. Also estimate the number of youth and adult participations per week in after school and evening classes/activities provided by your school system.

A credit enrollment should be counted every time a name appears on any class list or roster, and wherein the student receives public school, college or university credit for his or her involvement (e.g., participants in high school completion, university courses). An individual's name should be counted every time it appears.

A non-credit enrollment should be counted every time a name appears on any class list, team roster or league ledger, and when no credit is received for involvement (e.g., participants of enrichment classes, baseball teams). An individual's name should be counted every time it appears.

A participation should be counted every time a person participates in a community education endeavor, and when no attempt is made to secure names of the people involved (e.g., participants in teen clubs, baseball game audiences, theater audiences). **(Do not include credit and non-credit enrollments.)**

Figure 9.1

	Credit Enrollments	Non-Credit Enrollments	Weekly Participations
Number of Youths			
Number of Adults			

X. Please indicate the school district's utilization of community councils for community education by completing Figure 10.1 where appropriate.

Figure 10.1

	Local School Center Community Councils	Regional Community Councils	District-Wide Community Council
A. Current number of community councils			
B. Check (✓) function of council			
1. Advisory			
2. Decision-making			
3. Both			
4. Other--			
C. Check (✓) selection procedure of council members			
1. Appointed			
2. Elected			
3. Voluntary			
4. Combination of ___ & ___			
5. Other--			
D. Check (✓) term of service of council members			
1. 1 year			
2. 2 years			
3. 3 + years			
4. No set term			
5. Other--			
E. Approximate number of members on each council			
F. Approximate number of meetings held in last 12 months			
G. Are there written guidelines for council members?			
1. Yes			
2. No			

Are separate school center community councils maintained for after school/evening endeavors, or does one council serve all educational endeavors of a local school center?

____ Separate council

____ Shared council

XI. Please indicate sources and amount of revenue appropriated this fiscal year for community education in association with the school district. Do not include revenues generated from the Florida Educational Finance Program for the regular day-school instructional program.

Figure 11.1

Sources of Revenue	Amount Appropriated This Fiscal Year
A.	
B.	
C.	
D.	
E.	
F.	
G.	
H.	
I.	
Total	

XII. Please respond to the following questions regarding fee structure.

A. Do your community school centers operate from written fee schedules/policies for charging or not charging non-profit community organizations for school facility use? Yes ____ No ____

B. If yes, do these fee schedules/policies vary from school center to school center? Yes ____ No ____

C. Overall, which of the following statements best describes the intent of fee schedules/policies for non-profit community organizations?

___ 1. no fee is charged
___ 2. a standard fee is charged
___ 3. a fee is charged according to the user's ability to pay
___ 4. an arbitrary fee is charged
___ 5. other ____________________
____

D. Overall, which of the following statements best describes the intent of fee schedules/policies for profit-making community organizations?

___ 1. no fee is charged
___ 2. a standard fee is charged
___ 3. a fee is charged according to the user's ability to pay
___ 4. an arbitrary fee is charged
___ 5. a fee based on percentage of profit is charged
___ 6. other ____________________
____

XIII. Please suggest actions the Florida Department of Education might take to facilitate growth of community education in your service area. (Use back of page if additional space is needed.

____
____
____
____
____
____
____

Thank you again for your effort and cooperation.